COUNTY BOROUGH OF NORTHAMPTON.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR 1928.

By STEPHEN ROWLAND, M.D.Edin., D.P.H.Camb.,

Medical Officer of Health,
School Medical Officer, and
Chief Tuberculosis Officer.

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APPENDICES.

To the Mayor, Aldermen, and Councillors of the County Borough of Northampton.

Mr. Mayor, Mrs. Adams, and Gentlemen,

I present herewith the Annual Report of the Medical Officer of Health for the year 1928, which for statistical purposes embraces a period of fifty-two weeks, commencing on 1st January and ending on 29th December, 1928.

The report is on the lines of its predecessors and contains little new matter. It is later than usual, due to the large amount of extra work thrown upon the Staff this year owing to the presence of smallpox.

Chief interest during 1928 was centred in the smallpox outbreak, which, commencing in July, continued for the rest of the year and is still with us at the time of writing.

I have again to acknowledge the assistance and loyal co-operation from all members of my Staff during a very anxious time.

I remain,

Your obedient Servant,

Stephen Rowland

Medical Officer of Health.

Public Health Department,
Guildhall, Northampton,
June, 1929.

PUBLIC HEALTH STAFF.

Medical Officer of Health, School Medical Officer, and Chief Tuberculosis Officer	*Stephen Rowland, M.D. Edin., D.P.H. Camb.
Tuberculosis Officer	*Norman B. Laughton, M.B., Ch.B., D.P.H.
Assistant Medical Officer for Maternity and Child Welfare	*Miss Evelyn F. Bebbington, M.B., M.R.C.S., D.P.H.
Chief Sanitary Inspector and Rat Officer	W. J. Barker † ‡
Sanitary Inspector and Inspector of Common Lodging Houses	J. Walker † ‡
Meat and Food Inspector	J. Brown † ‡
Sanitary Inspector and Inspector of Canal Boats	B. Knowles † ‡
Assistant Sanitary Inspectors ...	T. L. Boast † ‡
	S. A. Tench †
Health Visitors	*Miss L. M. Islip ‖ §
	*Miss M. E. Mossey ‖ § ¶
	*Mrs. F. H. Smith ‖ § ¶
	*Miss F. M. V. Blythe Brown ‖§
Tuberculosis Nurse	*Miss L. Reese §
Matrons	*Miss G. Whitehouse ‖ § ¶ (*Welford Road Tuberculosis Hospital*)
	Miss M. E. Norman § ¶ (*Harborough Road Infectious Diseases Hospital*)
Clerks	A. F. Knight (*Chief Clerk*)
	*S. J. Knight (*Tuberculosis Dispensary*)
	H. T. Boswell
	*Miss G. L. York (*Infant Welfare Centre*)
	G. B. Pratt
Removal and Disinfecting Staff	*C. H. Williams
	*A. W. Blason
	*R. G. A. Britten
Rat-catcher	J. Malone

All the above are whole-time Officers. School Medical Staff is not included.

*Signifies that contribution is made towards salary under the Public Health Acts or by Exchequer grants.

† Holds Inspector's Certificate of the Royal Sanitary Institute.

‡ Holds Certificate for Inspecting Meat and Other Foods.

‖ Holds Certificate of the Central Midwives Board.

§ General Trained Nurse.

¶ Fever Trained Nurse.

SUMMARY OF STATISTICS.

Area of Borough (in acres)	3,469
Population :—	
Census 1921	90,895
Estimated at Mid-year 1928 { For Birth-rate	94,270
{ For Death-rate ...	94,070
Number of Inhabited Houses :—	
Census 1921	19,893
Estimated at Mid-year 1928	23,550
Number of Families or Separate Occupiers (1921)	21,979
Rateable Value (31st December, 1928)...	£655,025
Yield of One Penny Rate (1st April, 1928)	£2,431

Extracts from Vital Statistics for the Year 1928.

		TOTAL.	M.	F.		
Live Births	Legitimate	...1,249	626	623	Birth-rate	... 13·9
	Illegitimate	... 59	37	22		
Deaths		...1,060	549	511	—Death-rate	... 11·3
"Standardised Death-rate" (Factor 0·921)						... 10·4
Number of Women dying in, or in consequence of, Childbirth	From Sepsis					3
	From Other Causes ...					1
Deaths of Infants under One Year of Age per 1,000 Live Births :—						
Legitimate...49·6	Illegitimate...135·6	Total ...				... 53·5

	NUMBER.	RATE.
"Zymotic Deaths"	16	0·17
Deaths from Measles (all ages)	7	0·07
Deaths from Whooping Cough (all ages)	0	0·00
Deaths from Diarrhœa (under two years of age) ...	2	*
Deaths from Respiratory Tuberculosis...	86	0·91
Deaths from Other Tuberculous Diseases	14	0·15
Total Tuberculosis Deaths	100	1·06
Deaths from Cancer	150	1·59

*1·5 per 1,000 Live Births Registered.

I.—STATISTICS AND SOCIAL CONDITIONS.

Population

The Registrar-General estimated the population of Northampton in the middle of 1928 to be 94,270, which is an increase of just over a thousand on the figure he gave for 1927. As this is only an estimate, it does not necessarily follow that the population of the Town has increased by that amount in twelve months. On this figure the birth-rate is calculated, but for the purposes of the death-rates he makes allowance for the military stationed in the Town and gives a figure of 94,070.

The natural increase, *i.e.*, the excess of births over deaths, was 248, or 2·6 per thousand. Table 1 gives the population and natural increase during the last ten years.

Births

1,308 live births were registered during the year, giving a birth-rate of 13·9, compared with 16·7 for England and Wales. The rates for the last ten years are set out in Table 2.

Fifty-nine (4·5 per cent.) were illegitimate.

Stillbirths

The number of stillbirths registered during 1928, the first full year during which such notification was required by law, was fifty-three.

Deaths

There were 1,060 deaths registered, equal to a death-rate of 11·3 per thousand living, compared with 11·7 for England and Wales.

As previously mentioned in other reports, there are always some deaths for which no medical certificate is available ; these numbered sixty-seven during 1928 (sixty-one inquests, three coroner's certificates after post mortems without inquests, and three uncertified), 6·3 per cent. of the total deaths.

Deaths of elderly persons (sixty-five years and upwards) accounted for 49·9 per cent. of the total deaths. The greater the proportion of elderly persons in the population, the higher must we expect to find the death-rate.

409 persons, including residents and non-residents, died in one or other of the local institutions. A considerable proportion of these deaths took place in the General Hospital and the non-residents were transferred to their respective districts by the Registrar-General.

The " standardised death-rate " for Northampton (obtained by applying the Registrar-General's factor for age and sex constitution to the crude rate) was 10·4 per thousand.

Following the usual custom, Table C at the end of this report, giving the causes of death at different periods of life, has been prepared in the Department from the information supplied weekly by the local registrars. The classification agrees in essential particulars with the figures received from the Registrar-General on 26th March, 1929.

Social Conditions

Though Northampton is an industrial borough whose staple trade is bootmaking, it is not like so many other towns which depend almost entirely on one trade and when that fails there is acute distress. Here we have other industries which provide work for large numbers of people, *e.g.*, brewing, printing, motor body building, etc., so that bad trade is not so keenly felt as in towns dependent on one industry only, coal or cotton for instance.

Unemployment

The amount of male unemployment in the Borough has increased in 1928, this being specially marked in the bootmaking industry. For several years, while other industrial areas engaged chiefly in the coal, iron, shipbuilding, or cotton trades were feeling the depression severely, Northampton escaped lightly, but at present there appears to be a considerable amount of short time and even actual unemployment.

The amount of relief work found by the Distress Committee throughout the year was very limited, consisting of work in the parks and recreation grounds. The numbers on the register and awaiting work remained high. The average number of men employed weekly by the Committee (not including men employed by the Borough Engineer on roadmaking) was 121 in January, but fell to just over fifty by April and was down to thirty in December. At the same time there was a waiting list which averaged 246.

The number of men receiving unemployment relief from the Guardians during December averaged 167, upon whom depended 124 women and 297 children.

Meteorology

The returns from which these notes are compiled were taken from the readings of Mr. R. H. Primavesi's instruments. They do not present anything outstanding, as, unfortunately, we have no local record of the one feature for which 1928 will be remembered, viz.: the amount of sunshine, which was undoubtedly much above the average. Table 4 gives certain data for each month of the year. The total rainfall, 25·17 inches, was only 0·65 inches above the mean for the last twenty-four years. Neither half-year varied more than an inch from the average for the corresponding period. With the large amount of sunshine and the rainfall about the average for this part of the country, the summer and autumn will be long remembered with pleasant recollections. The heaviest fall on any day was 1·15 inches on 31st July. No extremes of temperature were recorded, the highest being 88·0° on 15th July and the lowest 23·5° on 1st January. The mean temperature for the year was 50·43°, as deduced from the readings of the maximum and minimum thermometers. There were twenty-four " cold nights," *i.e.*, nights on which the thermometer fell below 32°F. No heavy falls of snow occurred during the year.

The notes on infant mortality, the incidence and mortality from infectious diseases, housing conditions, and other statistics usually included in the annual report, will be found under the headings referring to these matters. Other Statistics

Attention is directed also to the vital statistics on page 6 and to Tables A, B, C, and D at the end of this report.

II.—GENERAL PROVISION OF HEALTH SERVICES.

The three municipal hospitals are all situated in the country outside the Borough boundary, viz. :— Hospitals

1.—The Fever Hospital at Kingsthorpe, for the reception of scarlet fever, diphtheria, enteric, erysipelas, etc. cases ; approximately one hundred beds.

2.—The Smallpox Hospital at Hardingstone, which can accommodate about thirty patients, the number depending to some extent on their sex and age. In the spring of 1929 it was found necessary to extend the hospital so as to accommodate approximately one hundred patients.

3.—Welford Road Tuberculosis Hospital for the reception of twenty-eight persons suffering from tuberculosis of the lungs.

The Local Authority has made arrangements with a voluntary body, viz. : The Northampton General Hospital, for the reception of maternity cases.

Orthopædic treatment for children and for adults suffering from surgical tuberculosis recommended by the Tuberculosis Officer, is provided by the Local Authority at the Manfield Orthopædic Hospital, Northampton, a voluntary institution situated just outside the Borough. Altogether about twenty beds are regularly occupied by patients paid for by the Corporation.

There is no municipal children's hospital, nor is one necessary, as children are well catered for at the existing institutions.

The Local Authority makes no provision for the reception of unmarried girls about to become mothers. Most of these either go into the Union Infirmary or are confined at home. Institutional Provision for Unmarried Mothers

There is in the Borough a home for unmarried mothers, owned and managed by the Peterborough Diocesan Authorities, which receives girls from the Counties of Northampton and Rutland. It is registered under the Nursing Homes Registration Act, 1927, and has an honorary medical officer, and accommodation for eight mothers and nine babies. Though few Borough girls enter this home, several have been sent by its managers to homes situated some distance from Northampton, this being the usual practice in dealing with such cases.

These remain as in 1927. *See* report for that year, page 10. Ambulance Facilities

Clinics and Treatment Centres

The details of the Child Welfare Centres, School Clinic, Tuberculosis Dispensary, and Venereal Diseases Clinic were given in my last report, page 10.

Orthopædic Clinic. There is no municipal orthopædic clinic in Northampton. Cases requiring expert advice, whether they be infants or children of school age, are examined by the Visiting Surgeon, Dr. F. Wilson Stuart, at the out-patient clinic in connection with the Manfield Hospital, and those requiring in-patient treatment are referred to the appropriate committee through the Medical Officer of Health.

Artificial Light Clinic. The only artificial light clinic for the treatment of disease by means of ultra-violet light, under the aegis of the Corporation, is the one conducted at the Central Building, Dychurch Lane, in connection with the Maternity and Infant Welfare Centre. For particulars, *see* page 49.

Public Health Officers

See page 5.

Professional Nursing in the Home

(*a*) General. None provided by the Local Authority.

(*b*) For Infectious Diseases. The arrangement made with the Queen's Institute of District Nursing, mentioned in last year's report, is still in force.

Midwives

No subsidy is paid to any midwife and no midwife is employed by the Local Authority. Twenty-six trained and two untrained midwives gave notice of intention to practise in 1928. (*See* also Appendix II.).

Nursing and Maternity Homes

On 1st July, 1928, there came into force the Nursing Homes Registration Act, 1927, which repeals Part II. of the Midwives and Maternity Homes Act, 1926, and so much of any Local Act as provides for the registration of maternity homes. By this new Act it is laid down that if any person carries on a nursing home without being duly registered in respect thereof, he shall be guilty of an offence against the Act and shall in respect of each such offence be liable on summary conviction to a fine not exceeding fifty pounds. The Local Authority made bye-laws with respect to nursing homes in the Borough, which received the sanction of the Ministry of Health on 1st March, 1929.

At the end of December, 1928, there were on the register seven nursing homes, viz. :—

Maternity Homes	3
Mixed Home	1
Homes for Aged and Infirm	2
Home for Mothers and Babies	1

The latter institution is the one referred to on page 9 as being conducted by the Peterborough Diocesan Authorities.

All these homes were visited and approved by the Medical Officer of Health before registration and they are inspected at

regular intervals by the Assistant Medical Officer for Maternity and Child Welfare, who is the officer appointed by the Local Supervising Authority for such duty.

See page 30.

Maternal Mortality

Legislation in Force

The special Acts and Bye-laws relating to public health in force in the County Borough remain as stated on pages 11 and 12 of last year's report, except that the Bye-laws relating to Maternity Homes were superseded by the Nursing Homes Bye-laws early in 1929.

III.—SANITARY CIRCUMSTANCES.

Water Supply

Fourteen samples of the Town's water supply were examined by the Bacteriologist. All were taken from points of delivery at regular intervals throughout the year, so that some were obtained during rainy periods and others in dry weather. The reports varied considerably, some samples being reported to reach a high standard of bacteriological purity, while at other times this standard was not attained. The samples taken during the latter half of the year were not nearly so good as those taken during the first three months. In January, March, and June, no coliform organisms were found in 100 c.c., while in the later months of the year they were present in 10 c.c. The cause of this decline in the purity has not so far been explained. Whilst the bacteriological reports did not shew the usual degree of purity as regards the number of coliform organisms present in the water, the total number of bacteria growing on the different media was remarked upon as being small. That the water was not responsible for any of the usual water-borne diseases (enterica, cholera, or dysentery) is proved by the absence of these diseases from the Town, in spite of coliform organisms being found in 10 c.c. of the public water supply.

The water was chemically examined by the Public Analyst three times and on each occasion it was found to be satisfactory for drinking purposes. Seven samples were also submitted from private wells for chemical analysis.

Polluted Wells

Eight houses, all in the same area of the Town, had since erection (some forty years ago) drawn their domestic water supply from six shallow wells. The position of the wells, together with the Public Analyst's unsatisfactory reports, left no doubt that they were polluted. Notices were served requiring the Town's supply to be connected. This was done in all cases. Subsequently, orders were made by the magistrates that water from these wells was not to be used for domestic purposes.

Pollution of Streams

Though there was a period during the early summer when the water in the River Nene reached a low level, there was never any serious pollution of the stream, such as occurred in 1927.

Drainage and Sewerage

The work of re-building the older sewers of the Town, which will have to be undertaken at some early date, has not yet been commenced.

The Borough Engineer has kindly furnished information regarding drainage work carried out during the year :—

Extension of sewer in St. George's Avenue.

Extension of surface-water sewer, London Road.

New surface-water sewer, Victoria Promenade.

Sewers and surface-water sewers for Kettering Road Housing Estate (front development).

Sewers and surface-water sewers for the development of thirty-eight acres (350 houses approximately), St. David's Estate, which includes laying the main outfall for the whole of the estate.

Extension of surface-water sewer in Sulgrave Road.

Scavenging

No change was made during the year in the unsatisfactory method of collecting and disposing of household refuse. Machinery for the disposal of the refuse on up-to-date lines has been sanctioned by the Corporation and it is understood the plant will be installed shortly.

Sanitary Inspection

The work of the sanitary inspectors is summarised in Table 5, and Tables 6 and 7 give further particulars in connection with house drainage. During the year, 2,240 houses were inspected, and of these 1,150 were found to require some attention, with the result that 719 were repaired and 629 were cleansed and whitewashed, while others were dealt with as the conditions required, details of which appear in Table 5.

Canal Boats

The annual report required under the Canal Boats Acts was sent to the Ministry of Health before the appointed date, 21st January. Inspector Knowles reported that thirty-three boats were inspected, these being registered to carry 101 adults and five children, but the actual number of occupants was fifty-six adults and twenty-three children. No cases of infectious disease occurred on any boat and no offence arose which necessitated the taking of legal proceedings. The number of boats on the register and in use is believed to be eight.

Common Lodging Houses

One of the common lodging houses in the Town was closed towards the end of the year, owing to the death of the registered keeper ; another was opened and registered, making four still on the register, with accommodation for 158 men, against 169 previously. The one which was closed was very old property and constantly needing repairs ; it is satisfactory, therefore, to know it is removed from the register. The houses have been visited regularly and have been found to be conducted satisfactorily.

Factories and Workshops

In Table E will be found an account of the work done under the Factory and Workshop Act, 1901, set out in the prescribed form. The general scheme under which the Act is worked was described in last year's report.

Smoke, etc. Nuisances

Though it was not necessary to start legal proceedings in connection with nuisance arising from the emission of smoke, there were seven occasions on which we had to call the attention of occupiers on account of complaints we received under this heading, which includes not only the emission of black smoke, but the burning of refuse, leather chips, etc. on fires, the flues and chimneys of which are unsuitable for the purpose. In all cases the nuisance was abated on our making formal representation to the persons concerned.

Offensive Trades

The offensive trades carried on within the Borough remained the same as in previous years, viz.: two tanners, three tripe boilers, and one rabbit skin dresser. No application was received for permission to commence a new one. The premises were regularly inspected and no serious infringement of the bye-laws was discovered and no complaints were received of any nuisance arising out of the trades carried on.

Rag Flock Acts, 1911 and 1928

The Chief Inspector paid fourteen visits of inquiry to premises where rag flock is used, but as all the invoices examined contained the proper guarantees no samples were taken for chemical examination.

Rat Repression

The Chief Inspector, carrying out the duties of Rat Officer, supervised the work of the Rat-catcher as heretofore. The Rat-catcher in his work depends chiefly on traps and ferrets, the use of poisons and the various rat viruses not being encouraged, as the former are certainly not without an element of danger to other animals besides rats, and serious trouble may be caused by poisoned rats creeping into spaces under floors, etc. to die and putrefy. Wfhen one considers the amount of destruction rats are capable o in a short time, the employment of a rat-catcher by the Local Authority appears to be a real economy. The yearly number of rats accounted for since he was appointed in 1919 will be found in Table 8.

Premises Controlled by Bye-laws, etc.

Particulars of these, excepting the ones above-mentioned, will be found under the section dealing with food and comprise cowsheds, dairies, bakehouses, slaughterhouses, and ice cream shops.

Schools

The Medical Officer of Health is the School Medical Officer in an administrative capacity, as explained in last year's report, but the actual work of school inspection, etc. is carried out by the Assistant School Medical Officer, Dr. J. H. Mason, and his Staff, along with Mr. A. Sherwood Anderson, the School Dentist,

and an assistant. The arrangement whereby Dr. N. B. Laughton, the Tuberculosis Officer, devotes two half-days per week to school inspection has continued during the year, but, of course, does not allow the amount of inspection to be carried out which it is felt would be desirable.

The whole Staff of the School Medical Department remained as in the previous year.

The annual report of the School Medical Officer, prepared according to the requirements of the Board of Education for the Education Committee, is published separately, giving particulars of the work performed by the school medical service.

The most important matter in connection with infectious diseases in schools was the outbreak of smallpox in the autumn, which necessitated a large amount of time being given to the examination of school contacts. The fact that the Medical Officer of Health is also School Medical Officer proved very useful during the smallpox outbreak, as it enabled a much closer connection between the two departments than would have been possible under other conditions, and I think it had the effect of preventing the spread of the disease when we got in touch with a case of smallpox. The scheme for dealing with cases occurring in schools will be found in the section on smallpox, page 24.

No school was closed on account of the presence of infectious disease, but one infants' department was closed for a week in an attempt to cut short an outbreak of measles just before the August holidays.

The average number of children on the school registers was 12,475 and the average attendance was 11,378 (91·2 per cent.).

IV.—INSPECTION AND SUPERVISION OF FOOD.

Milk Supply

Only a small fraction of the Town's milk supply was obtained from cows housed within the Borough, the number of cows so housed being about one hundred and twenty during the winter months.

There is no reason to believe the daily consumption of milk in the Town has grown much above the approximate figure of 5,000 gallons given in last year's report, but I am informed that the sale of "Pasteurised" milk is slowly increasing. In view of a report upon some work recently carried out in Scotland concerning the value of milk in addition to the ordinary diet of schoolchildren, it seems unfortunate that more milk is not consumed in this country, especially by children.

The report on the chemical examination of milk will be found under the heading dealing with Sale of Food and Drugs Acts, page 18.

Dairies, Cowsheds, and Milkshops

At the end of the year, fifteen cowkeepers and 175 retail dairymen and three wholesalers were on the register. In addition, forty-one persons are permitted to sell milk in bottles only. Twenty-three certificates of registration were issued, but as usual

a number (thirteen) related to transfers. The inspectors made four hundred visits to registered premises and defects were found and remedied in six cases.

Sterilised Milk

There has been no appreciable increase in the sale of sterilised milk in the Town since my last report on the subject. Two large companies and twenty-two retailers are permitted to sell this milk.

Milk (Special Designations) Order, 1923

At the end of 1928, the following licences were in operation under this Order :—

Dealers' licences to use the designation "Certified" Two

Dealers' licences to use the designation "Grade A (Tuberculin Tested)" :—

(*a*) bottling establishments .....Three

(*b*) shops ..... Five

Dealers' licences to use the designation 'Pasteurised' :

(*a*) Pasteurising establishments ..... Two

(*b*) shop ..... One

These licences are held by seven dairymen in all.

The holders of the "Certified" milk licences inform me there is practically no demand in the Borough for that grade of milk, and neither has renewed the licence for 1929.

Twenty-one bacteriological examinations were made of these designated milks with the result that four failed to reach the required standard, the failure being owing to the presence of too many bacteria per c.c. or in the case of "Grade A (Tuberculin Tested)" its containing coliform organisms in 0·01 c.c. The particulars of the defaulting samples are as hereunder mentioned :

"GRADE A (TUBERCULIN TESTED)" MILK :—

Sample No. 68 contained coliform organisms in 0·01 c.c.

Sample No. 83 contained 890,000 bacteria per c.c.

Sample No. 84 contained 1,350,000 bacteria per c.c.

"PASTEURISED" MILK :—

Sample No.72 contained 166,000 bacteria per c.c.

The Order specifies that "Grade A (Tuberculin Tested)" milk must not contain more than 200,000 bacteria per c.c. and coliform organisms must not be present in 0·01 c.c. "Pasteurised" milk must not contain more than 100,000 bacteria per c.c., but there is no specified amount in which coliform organisms must not be present.

The average bacterial count of the ten satisfactory "Grade A (Tuberculin Tested)" milks was 4,718 bacteria per c.c. and of the seven samples of "Pasteurised" milk it was 24,723, which are both well within the standards laid down by the Order.

Twenty samples were sent by the Department to the Public Analyst for chemical analysis, and they were all genuine, in fact

all high-class milks. The average contents were as follow :—

	MILK-FAT.	NON-FATTY SOLIDS.
" Grade A (Tuberculin Tested) " (thirteen samples)	3·93 per cent.	8·87 per cent.
" Pasteurised " (seven samples)	3·56 per cent.	8·74 per cent.

In addition, four samples of ordinary milk were submitted to the Bacteriologist, the average count being 154,725 organisms per c.c., which may be considered good for that type of milk, especially as two of the samples were taken during the height of the summer. As might be expected, coliform organisms were present in large numbers, one sample containing this type of bacteria in 0·0001 c.c.

Preservatives

The Public Health (Preservatives, &c. in Food) Regulations, 1925 to 1927, besides governing several other matters relating to preservatives in food, revoke the Milk and Cream Regulations. It is now illegal to sell cream to which preservative has been added. It was not found necessary to take any proceedings under these new Regulations.

Food Inspection

No change has taken place in the arrangement which has been in force for some years, whereby one of the staff is specially appointed as Food Inspector and three of the district inspectors devote a portion of their time to this work, the whole being under the supervision of the Chief Inspector. Table 9 gives details of the food condemned.

Slaughterhouses

At the end of the year, there were fifty-four slaughterhouses on the register, an increase of one over the previous year, the Northampton Co-operative Society Limited having built a very fine up-to-date, in fact what one might call a model, abattoir. To these slaughterhouses the inspectors made 4,042 visits, 3,844 being during the actual process of slaughtering. The visits paid out of the usual slaughtering hours were chiefly to ascertain if the terms of the bye-laws were being carried out. Sixty-three infringements (chiefly of failure to whitewash at the proper time) were found and remedied without the necessity of taking legal action.

The Co-operative Society having set an example of how slaughterhouses should be built and maintained, we may at some later date find the municipal authorities following the lead.

During the year, the Corporation adopted the use of the " humane killer " in connection with the slaughter of animals in a slaughterhouse, making bye-laws, clause three of which reads : " A person shall not in a slaughterhouse proceed to slaughter any animal until the same shall have been effectually stunned with a mechanically operated instrument suitable and sufficient for the purpose." These bye-laws were confirmed by the

Minister of Health and came into force on 19th February, 1929. As might be expected, there was considerable opposition from the butchers, but I understand this has now subsided and things are proceeding very satisfactorily.

During the year, 170 notices of intention to slaughter out of the usual hours were received. Public Health (Meat) Regulations, 1924

On a few occasions it was found necessary to call the attention of butchers to the undesirability of exposing meat for sale outside shop windows, or behind open windows, in such a position as to run grave risks of its being fouled by mud or dust from the streets. In most cases the mere calling attention to the matter was sufficient to stop the practice forthwith, but one butcher had to be proceeded against. This action being the first of its kind to occur in the Borough, the magistrates inflicted a nominal fine of ten shillings.

Table 10 gives particulars regarding tuberculosis found in slaughtered cattle. It will be noticed how free from this disease are calves and sheep, the former due to their age and the latter possibly largely to the open air life they lead. Disease in Meat

No occasion arose on which it was found necessary formally to seize any meat on account of disease, all which was condemned having been found by the inspector at time of slaughter and voluntarily surrendered, or the inspector's attention was called to it by the butcher, who was always willing to accept the decision of the officer. Section 117 of the Public Health Act, 1875

An inspector seized 16½ lbs. of unsound fruit exposed for sale on a barrow. This was condemned by a magistrate and destroyed. The vendor was subsequently summoned before the Bench and fined forty shillings. The selling of unsound fruit from barrows in the street cannot be too strongly condemned. The fruit always falls into the hands of the poor and uneducated, who little know the risks they run in consuming it, and very frequently it is eaten by children.

At the end of the year, 104 bakehouses were in use. To these premises the inspectors made 270 visits, when forty-one infringements of the bye-laws were found, these consisting chiefly of neglect to whitewash at the proper time. These breaches of the bye-laws were remedied in all cases without recourse to legal action. Bakehouses

1,053 visits of inspection were made to other premises dealing with food, including those connected with the manufacture and storing of potted meats, jams, sweets, and ice cream. Other Premises dealing with Food

Food Poisoning

No instance of suspected food poisoning was brought to the notice of the Department during 1928, therefore no bacteriological examination of food was necessary.

Chemical Work

All chemical analysis required by the Local Authority is performed by the Public Analyst to the Borough, Mr. A. Prideaux Davson, A.R.C.Sc. (Lond.), F.I.C., F.C.S., of Bermondsey.

Sale of Food and Drugs Acts

Two hundred and forty-eight samples (*see* Table 11) were taken under these Acts, sixty-three informally. Fourteen were found to be not genuine, representing 5·6 per cent. of the whole, compared with 6·8 per cent. in 1927.

Of the fourteen non-genuine samples, thirteen were milk and one ipecacuanha wine. The latter was deficient in the alkaloids of ipecacuanha root 47·0 per cent; the chemist was warned. Of the thirteen unsatisfactory milks, one was an informal sample and contained 1·9 per cent. of added water; an official sample from the same source proved to be genuine. Of the other twelve milks, five were deficient in milk-fat varying in amounts from 6·0 to 12·7 per cent. and the remaining seven contained added water ranging from 2·0 to 48·8 per cent.

There were four prosecutions in connection with these defaulting milks:—

1.—In the first case, where the milk was deficient in milk-fat to the extent of 12·7 per cent., the milkseller was fined a total sum of three pounds.

2.—In the second, where the milk was 8·3 per cent. deficient in milk-fat, the case was dismissed, the magistrates believing the milk was sold as it came from the cow.

3.—In this instance the milk was deficient in milk-fat to the extent of 10·0 per cent. and again the case was dismissed, on the same grounds as the previous one.

4.—The next case was one where four samples were procured in course of delivery to a distributor in the Town from a producer in the County. All the samples contained added water, in the following amounts:—24·8, 48·8, 11·7, and 34·1 per cent. respectively. Defendant pleaded guilty because his cowman admitted putting the water in the milk without defendant's knowledge. The producer was fined two pounds on each count.

The remaining defaulters were dealt with by a warning letter on the instructions of the Executive Committee.

Five samples of skim milk shewed a fat content varying from 0·24 per cent. to 4·08 per cent. One was found to be a genuine whole milk. The average fat content of the other four was 0·38 per cent.

All the milks submitted to the Analyst were examined for the presence of preservatives, but none were detected.

The average fat content of the 164 samples of genuine milk was 3·71 and the non-fatty solids 8·87, figures well above the minimum laid down by the Ministry of Agriculture and Fisheries.

V.—PREVALENCE OF, AND CONTROL OVER, INFECTIOUS AND OTHER DISEASES.

"Zymotic Deaths"

During 1928, sixteen deaths were certified as due to the so-called "zymotic diseases," giving a "zymotic death-rate" of 0·17 per thousand living, the lowest ever recorded for the Borough, as follows :—

	NUMBER OF DEATHS.	DEATH-RATE.
Diarrhœa (under two years)	2	0·02
Diphtheria	7	0·07
Enteric Fever	0	0·00
Measles	7	0·07
Scarlet Fever	0	0·00
Smallpox	0	0·00
Whooping Cough	0	0·00

Measles and Whooping Cough

As stated in previous reports, these two diseases not being notifiable, knowledge of their incidence is not so complete as it is with some other infectious diseases. Our chief source of information regarding them is the weekly returns of suspected infectious illness sent to the Medical Officer of Health by the head teachers of the public elementary schools, and from these it would appear that neither of them was very prevalent in 1928. The number of cases of suspected measles was 435 and seven deaths were certified as due to measles, giving a death-rate of 0·07 per thousand living, as against 0·11 for England and Wales. No death occurred from whooping cough (the rate for England and Wales is given as 0·07) and only fourteen cases were recorded in the school returns.

Diarrhœa and Enteritis

There were only two deaths from diarrhœa of children under two years of age, giving the low death-rate of 1·5 per thousand births registered, compared with 7·0 for England and Wales. The "zymotic" and diarrhœa death-rates are reliable guides to the sanitary conditions of a town, babies and young children being very sensitive to the conditions which go to furnish these deaths.

Influenza

The year 1928 cannot be considered to have been an influenza year, as it was not marked by any large outbreak such as characterized 1918 and 1919. The total deaths in the Borough attributed to influenza and influenzal pneumonia only numbered fifteeen, compared with fifty-four in 1927. These fifteen deaths were spread throughout the year from January to December, no month providing more than three and only three months failing to shew one death attributable to influenza. The death-rate for Northampton was 0·16 and for England and Wales 0·19.

Encephalitis Lethargica

One case of acute encephalitis lethargica was notified during the year, the patient being a schoolgirl aged five and a half years. The illness commenced with sickness and headache, the child becoming comatose, the disease ending fatally three weeks after onset.

In addition to this, two deaths of cases not previously notified were attributed to chronic encephalitis lethargica. In one, the patient had been ill for two years and in the other seven. In no instance was there any spread of the disease to other members of the household.

Enterica

Two notifications under this heading were received during the year. One was a woman, aged fifty-four, who did not appear to me to shew the usual symptoms of typhoid. The blood reaction was negative. She recovered without any complications,

The second was a boy from out of town, who developed paratyphoid A in the General Hospital. He also recovered.

The attack-rate was 0·02 (England and Wales 0·09).

Erysipelas

Fifty-three notifications of erysipelas were received, this being over forty per cent. above the number for the previous year. Two were from out of town, leaving fifty-one actual Borough cases. Four deaths were certified as being due to erysipelas and in one case notified as suffering from this disease death was attributed to septicæmia, which apparently followed the bite from an insect, the kind of insect not being known to the patient or her relatives. The case-rate was 0·56, compared with 0·42 for the country.

Chickenpox

Owing to the presence of smallpox in the Town during the latter half of the year, chickenpox was made notifiable by an Order which came into force on 20th August. Between that date and the end of the year, 210 cases were notified either by general practitioners or parents. These were visited by the inspectors, and where there was reason to doubt the diagnosis the Medical Officer of Health also paid a visit. In this way we picked up several cases which were undoubtedly mild smallpox.

Vaccination

For many years Northampton has been a stronghold of the anti-vaccinationists and when smallpox invaded the Town in the summer it found a large proportion of the population unvaccinated. The Education Committee issued a leaflet to parents advising that all children not previously vaccinated should be vaccinated without delay, but to this appeal there was a surprisingly poor response.

Smallpox

On 23rd January, I was asked by a general practitioner in the Town to see a suspected case of smallpox in an unvaccinated woman, aged twenty-seven years. The patient shewed all the signs of suffering from an attack of smallpox similar to the type which had been prevalent in certain parts of England and Wales

for some years. The history shewed she had been away from Northampton, spending Christmas holidays in a town where smallpox had been present, having returned home on 4th January. After her return she remained quite well until the morning of 17th January, when she began to feel ill, and was so unwell by noon that she did not return to work after dinner. The rash appeared on the 20th, with the typical distribution of smallpox. She was removed to the Smallpox Hospital and the usual investigation of contacts was carried out, with the urgent request that all who had not been recently vaccinated be vaccinated forthwith. As the patient had been so ill from first onset of symptoms as to be confined to bed, she had not been in actual contact with any persons outside the members of her own family, six in number, only one of whom had been vaccinated, and that in infancy fifty years ago. All accepted vaccination, but in two of them the operation was unsuccessful, viz.: the mother previously vaccinated fifty years ago and the sister, aged thirty.

We communicated with the Medical Officer of Health of the town where the patient had spent the Christmas holidays, giving the addresses of friends called upon during the stay, and he replied saying he had at one of the addresses found a girl, aged six, suffering from smallpox, while her mother had signs of having had smallpox recently. "This woman, Mrs. S., who is Mrs. B's. sister, is doubtless the cause of the smallpox in her own child and also in your case. The history shews that she had this about Christmas time."

The two contacts, mother and sister, whose vaccinations were unsuccessful, were revaccinated on 31st January, and again the mother was unsuccessful, the sister successful. On 7th February, the sister did not feel well but attributed her feelings to the vaccination and on the 11th a rash was noticed, which proved to one of smallpox, modified by the vaccination successfully performed too late to prevent its onset. She was removed to the hospital on 13th February. This was a much milder case than the infecting one, both as regards symptoms and rash, as would be expected from the successful vaccination a week before onset. Both cases made good recoveries and were discharged together on 3rd March.

After the outbreak in the early part of the year the Town to the best of our knowledge remained free from smallpox until 6th July, when I was again asked to see a suspected case, this time a man of sixty-six, vaccinated in infancy, who was suffering from a severe attack. It appears in this instance, the disease was introduced to the Town from the London district by the patient's brother, aged sixty, who arrived in Northampton on 4th June, having tramped from London sleeping in casual wards on the way, and subsequently suffered from a rash which was not diagnosed as smallpox, although at the time of my visit he shewed healed scars suggestive of smallpox. His nephew, aged twelve and unvaccinated, with whom he slept had also well marked

fresh scars on his arms and legs characteristic of that disease. The whole household was promptly vaccinated, but in the case of the two persons suspected of having recently suffered from smallpox it was unsuccessful, being further proof (if such were required) of the nature of the rashes, or so-called spots, from which these two had suffered.

From that date onwards to the present time (June, 1929), the Town has never been free from smallpox, though the disease gradually declined in the late autumn and early winter, so that by Christmas we had only two patients in the hospital at Hardingstone. This state of affairs was not to continue for long, as on Christmas Day a further case was notified, to be followed by five more before the end of the year. Two of these latter, a man aged twenty-nine and a child aged eight, led to further spread as we subsequently traced six directly to the former and eleven to the latter, who was regarded as suffering from chickenpox and allowed to attend a Christmas party, where she infected ten out of the sixteen persons present.

For a time the disease appeared to concentrate itself in a certain department (staffed by male operatives) of a large factory in which a very considerable portion of the workers were unvaccinated. Case after case kept occurring in this room, but never amongst men who had been vaccinated in the army. After some discussion amongst the employees a large number underwent vaccination and the disease disappeared from the room and from the factory, and so far as I am aware there has not been another case there since the end of September, 1928.

Another centre from which the disease spread was Spring Lane School where seventeen cases occurred amongst the scholars. It may be noted in passing that this school is situated in one of the poorest and most crowded parts of the Town, a locality in which most of the inhabitants "do not believe in vaccination."

Altogether there were eighty-two notified cases, spread over the year as follows:—

January	1
February	1
March	0
April	0
May	0
June	0
July	2
August	26
September	13
October	25
November	6
December	8

The attack-rate was, therefore, 0·87 per thousand of the population compared with 0·32 for England and Wales. The ages of the sufferers ranged from twenty-two months to sixty-six years. There were no deaths.

It is interesting to examine the vaccinal condition of the patients. Seventy-one (86·6 per cent.) were not vaccinated *before exposure to infection.* Of the remaining eleven who had been previously vaccinated, nine were vaccinated in infancy and their ages on admission to hospital were 66, 57, 46, 58, 57, 50, 62, 48, and 48 years. Of the other two, one aged twenty-nine years was said to have been vaccinated in the army. He had one small doubtful vaccination scar. If it really was the result of vaccination the effect of the operation must have been very slight and not sufficient to confer protection. This was also the opinion of a medical practitioner of very wide clinical experience who saw the case with me. I may say this patient suffered from a severe attack of smallpox. The eleventh of the vaccinated cases, aged forty-seven, had postponed vaccination until she attained the age of twenty-two, which gave an interval of twenty-five years since the operation. She only had the disease in a mild form.

Nine persons were vaccinated *after exposure to infection* but too late to prevent the onset of the disease.

In addition to the eighty-two known cases which were removed to hospital, there were at least seven "missed cases," *i.e.,* persons who suffered from smallpox but who recovered before we found them and only came to light after they had given rise to others. One of these, aged sixty, was vaccinated in infancy; the remainder were unvaccinated.

The type of the disease varied considerably; in some instances there was little or no illness with only a few pocks, not above half-a-dozen, whereas in others the initial onset was so severe as to cause alarm before the rash came out and in these cases the eruption was always very marked.

As in all outbreaks of smallpox, when the Medical Officer of Health had confirmed the diagnosis, the case was removed to hospital, the usual disinfection was carried out and all known contacts were visited by the inspectors and those not recently vaccinated were advised to undergo vaccination at once. In some instances this advice met with a ready response, but in many it was refused as they "did not believe in vaccination." The contacts were kept under observation for three weeks by the inspectors and Medical Officer of Health and visited regularly during the period in which the rash would develop if the contact were going to suffer from smallpox. In addition, the employers of all contacts were advised, giving (when known) the dates on which the eruption was most likely to appear. We also received lists of absentees from factories, etc. where cases of smallpox had attended work in an infectious condition and these absentees were visited to ascertain the reason for the absence. The Medical Officer of Health has no power to prevent contacts from working or going about their ordinary duties, but most employers excluded contacts from the factories for the period during which smallpox would develop, if it were going to do so, owing to contact with known cases.

Thirty-one cases of smallpox amongst schoolchildren came to the notice of the Public Health Department up to the end of the year. It was not considered advisable to close any school on account of the disease, as by this means we should have lost touch with the children, who would have still continued to infect each other whilst playing in the streets or in each other's homes. It was thought better to adopt the following plan. A list of all absentees (with cause of absence, if known) was supplied by the head teacher of any school where a child was known to have attended in an infectious state to the Medical Officer of Health by ten o'clock each morning, and these were at once visited by the sanitary inspectors. The inspectors conferred with the Medical Officer of Health each evening as to the result of their investigations. All children about whom there was the slightest suspicion were excluded from school for at least a week, during which time the rash would have appeared if the case were one of smallpox, and none were readmitted to school until they had been examined and passed by the Assistant School Medical Officer, Dr. Mason. All parents were advised to call in the family doctor where the circumstances seemed to warrant such action ; where no family doctor was available the Medical Officer of Health visited. In this way we were able to keep in close touch with suspected cases and discovered several in the earliest stages which might otherwise have slipped back to school unnoticed. The plan worked well and is still in force. It entailed a large amount of additional work for the Public Health Staff, but the results justified the means. The Education Committee also issued leaflets to the parents or guardians of each schoolchild advising vaccination, but the appeal met with a very poor response.

There are at least two lessons to be learned from our experiences in Northampton (and we have seen some four hundred and fifty cases of smallpox during the outbreak up to time of writing this report (June, 1929)). The first is regarding the protection conferred by vaccination performed before exposure to infection. This protection does not last for the whole of a long lifetime, but may be trusted to confer immunity for at least twenty to twenty-five years. The second point is that persons suffering from smallpox of such a mild type as to be almost unrecognisable are able to pass on the disease to others in a much more severe form. The explanation for this change of type I am not prepared to give, but will confine my remarks to saying that the general health of the patient at the time does not appear to be an important factor.

Scarlet Fever

Two hundred and twenty-eight notifications of scarlet fever were received, which gives an attack-rate of 2·42. Although this is higher than last year, it is below the rate for England and Wales (2·61).

Nine of the 129 removed to the Borough Isolation Hospital proved not to be suffering from scarlet fever. Three others

were from out of town, leaving 216 presumably genuine Borough cases.

The type of disease still remains very mild, in fact it is rare to see what one might call a really good case of scarlet fever. There were no deaths and no complications of any importance occurred amongst those who received hospital treatment. No "return case" was brought to our notice.

Diphtheria

Eighty-one notifications of diphtheria were received. Four cases were removed to the General Hospital in emergency, one being subsequently transferred to our Hospital, and sixty-one others were removed to the Borough Isolation Hospital. Of the eighty-one notifications, four referred to out-of-town children and five were afterwards found not to be suffering from diphtheria, which leaves seventy-two genuine Borough cases.

Nine were only bacteriological cases and shewed no clinical signs of the disease. As stated in last year's report, the mere finding in the throat or nose of an organism resembling the diphtheria bacillus is no proof the patient is suffering from diphtheria. Eighty-one notifications with seven deaths, give an attack-rate of 0·86 and a death-rate of 0·07, compared with rates of 1·55 and 0·06 for England and Wales.

Ninety-nine phials (314,000 units) of antitoxin for curative or preventive treatment were issued without charge to medical practitioners on application to the Public Health Department, at a cost of approximately £18. This is exclusive of the antitoxin used in the Infectious Diseases Hospital.

Borough Hospitals

Harborough Road Infectious Diseases Hospital. During the summer, work was commenced on the new electric laundry, which was not completed at the end of the year, but was actually put into use on 11th March, 1929. The work necessitated a large addition to the old hand laundry, which the engineers were able to incorporate in the new building. The electrically driven machinery, supplied by Messrs. Manlove, Alliott & Co., Ltd. of Nottingham, comprises a calorifier, two washers, a hydro-extractor, a calender, a remarkably efficient drying chamber, a steam-heated garment press, four electric hand irons, a collar and cuff ironing machine (for nurses' uniforms), a water softener, and a soap dissolver. All the water is heated by steam, the whole forming one of the most up-to-date laundry installations in the country. It is working very efficiently and it is expected will be able to deal with all the soiled linen of the institution even when all beds are occupied. In addition to the building of the laundry, all the exterior of the institution was painted and repaired where necessary. As in the preceding year, the hospital was never half full.

Welford Road Tuberculosis Hospital. This hospital, chiefly intended for the reception of advanced cases of pulmonary tuberculosis, was never full, the average number of patients in

residence being eighteen. A permanent fire escape in the form of an external iron staircase was fitted to the administration block, giving exits from the two upper storeys. There are many cheap and what one might term temporary or emergency fire escapes on the market in the shape of ropes, canvas shoots, wire ladders, etc., but the Committee rightly considered these much advertised means of escape are not suitable for installation in buildings where only females reside.

Smallpox Hospital. This hospital was opened for the reception of two patients in January and February, and was then closed until 6th July. It remained open from that date right up to the end of the year, and it has not been found possible to close it up to the time of writing (June, 1929). It was very fortunate that so much time and money had been spent on it in the way of repairs the previous year, for when it was required it was found to be in excellent condition, ready to open at a moment's notice, though never adapted to cope with the number of patients who were admitted last autumn, when at times the accommodation was sorely taxed.

Pneumonia

Two hundred and sixty-six notifications of pneumonia were received (three less than in 1927), of which seventeen were classified as post-influenzal in origin and 119 as broncho-pneumonia. In addition, thirteen deaths were certified as due to pneumonia (either primary or post-influenzal) in persons not previously notified and one case was notified in a soldier at the Barracks, which brought the total up to 280 known cases of pneumonia. The ages of the patients varied from three months to eighty-nine years.

Sixty-one deaths were ascribed to pneumonia, of which nine were stated on the death certificate to have followed influenza and twenty-three were attributed to broncho-pneumonia, leaving twenty-nine for all the other forms, in which the lobar type is the most prominent. The death-rate from all forms was 0·65.

Puerperal Fever

Seven cases of puerperal fever were notified during the year, giving a case-rate of 0·07, the rate for England and Wales being 0·06. There was also a death of a woman from puerperal septicæmia not notified, making eight known cases actually occurring in the Borough, though one of them was really a County case not notified before admission to the General Hospital, which reduces the number to seven genuine Town cases. Three were doctors' cases and three were attended by midwives, while one was a poor law case. Five were admitted to the General Hospital, the others being treated at home. There was one death in addition to the non-notified case and this took place in the General Hospital eight days after admission.

This and the two following subjects are dealt with in the report of the Assistant Medical Officer for Maternity and Child Welfare, Dr. Bebbington, on page 51.

There were thirteen notified cases of puerperal pyrexia, giving an attack-rate of 0·14, the same as for England and Wales. Six were doctors' cases, five occurred in the practice of midwives, and two were institutional cases. Eight were treated in institutions and five at home. One of these, though notified as puerperal pyrexia, died, the death being attributed to puerperal sepsis. Puerperal Pyrexia

Sixteen babies suffering from this disease were notified, but of these, one was from out of town not previously notified, which gives us fifteen genuine Northampton cases. Nine were midwives' cases, six occurred in the practice of doctors, and one was a poor law case. Neisser's organism was present in the discharges of three of the patients. The eyes of all of them seem to have cleared up without any impairment of vision. Ophthalmia Neonatorum

One hundred and twenty-three persons belonging to the Borough were treated for the first time at the Special Clinic at the General Hospital, under the combined scheme worked in conjunction with the Counties of Northampton and Buckingham. They were classified thus :— Venereal Diseases

CONDITION.	MALES.	FEMALES.	TOTAL.
Syphilis	23	12	35
Gonorrhœa	36	12	48
Other than Venereal	23	17	40
Totals	82	41	123

From the returns furnished by the General Hospital it appears that twenty-four syphilis, thirty-six gonorrhœa, and two soft chancre patients carried out the full course of treatment as recommended by the specialists in charge of the Clinic, which included persons under treatment at the commencement of the year.

I understand the register was purged of redundant cases at the end of 1928 ; this accounts for the large numbers returned as ceasing to attend before completion of the full course of treatment, viz. : 202 syphilis and 183 gonorrhœa.

The total attendances at the out-patient clinic were 2,752 and 175 days were spent in hospital by patients.

In the treatment of syphilis, 564 doses of one or other of the approved arsenobenzene compounds were administered. In connection with the scheme, 578 specimens were examined by the Pathologist at a cost of £127 3s. 0d. ; 364 of the specimens were on behalf of the Clinic and 214 of local practitioners.

There has been no change in the working of the Tuberculosis Department during the year. It is satisfactory to note the number of notifications received for the respiratory form was smaller than in the two preceding years. Those for other forms were somewhat in excess of last year, but less than in 1926. Tuberculosis

Eighty-six deaths were attributed to the pulmonary form and fourteen to all other forms, giving a death-rate of 1·06 for all forms of tuberculosis combined, whereas that for England and Wales is provisionally given as 0·93 per thousand living. The death-rate from the pulmonary form (0·91), is the lowest on record for the Borough with the exception of the years 1906, 1923, and 1925. In the latter year it fell to 0·82, when it was actually lower than the rate for England and Wales.

Owing to the removal of names from the notification register under instructions from the Ministry of Health first put into operation in 1925, the number of persons on that register has decreased from 1,004 (791 pulmonary and 213 other forms) in December, 1925, to 528 (365 pulmonary and 163 other forms) at the end of 1928. As explained in a previous report, the deleted fall into two categories, viz. : (*a*) those in whom the diagnosis was not established, in other words, those who probably never suffered from the disease, and (*b*) those who may be considered as cured. Clearing the register of superfluous names is a very essential part of the Dispensary work, as it enables more time to be devoted to genuine cases.

There is one point in regard to tuberculosis which I would like to emphasise, and about which I feel like one crying in the wilderness. It is the undesirability of persons of either sex marrying when suffering from active tuberculosis of the lungs. One would think such a matter required no emphasis, but time after time I see patients far down the hill, with extensive lesions and tubercle bacilli in the sputum, taking upon themselves responsibilities which tax the abilities of the fit. Only a short time ago a young married woman, in the last stage of the disease, rose from her bed to attend the wedding of her sister (who also suffered from active phthisis). It was her last effort, as she never again left her bed and passed away a few days later, to be followed in a few weeks by her young child, who died from tuberculous meningitis. Since that occurrence, in the early part of the year, several marriages of Dispensary patients have been brought to my notice and in each case the newly married is suffering from active disease. I feel that if there is one circumtance in connection with consumption about which we can dogmatise, it is the hereditary tendency of the disease. Marriage amongst the tuberculous is only asking for trouble, not only for the present generation but also for the one to come.

Bacteriology

As in former years, the examinations in connection with the Tuberculosis Department were made at the Dispensary Laboratory, while most of the bacteriological work, including that for the Infectious Diseases Hospital and for general practitioners was performed at the laboratory in connection with the General Hospital. Amongst these examinations may be mentioned the regular examination of the Town's water supply and that of the designated milks. The usual table giving particulars of the clinical bacteriology will be found in the Appendix.

Disinfection

The disinfecting apparatus continued to function satisfactorily and in addition to the usual routine work a large number of articles were stoved in connection with the smallpox outbreak.

Table 14 shews the number of articles stoved month by month at the Disinfecting Station, St. Andrew's Road.

VI.—MATERNITY AND CHILD WELFARE.

General Remarks

The eighth annual report on the work in connection with maternity and child welfare in the Borough will be found as Appendix II., pages 46 to 57.

During the year, Mrs. Emily H. Shaw, M.D., who had held the post of Assistant Medical Officer for Maternity and Child Welfare for nearly eight years, resigned and ceased duty at the end of September, being succeeded by Miss E. F. Bebbington, M.B., D.P.H., who commenced on 1st December. I cannot pass to other parts of the report without referring to the loss the Department has sustained by the resignation of Dr. Shaw. It was owing to her untiring efforts that Northampton took such a leading place in the maternity and child welfare world, and she left behind her an example of efficiency and courtesy for all in the Department to follow.

Dr. Bebbington's report is on the usual lines and gives particulars concerning infant mortality, the working of the Births Act, the maternity and child welfare centres, and the supervision of midwives. Information will also be found regarding the assisted milk supply to necessitous mothers and infants, the dental work performed in connection with the Department, and the help rendered by members of the Voluntary Association, who continued, as previously, to spare no pains to make the scheme a success.

Infant Mortality

The infantile death-rate for the year was 53·5, a remarkably low figure for an industrial town, being 11·5 below that for England and Wales and only having touched a lower level on two occasions, viz.: 52·2 in 1922 and 52·1 in 1924. Much as one may wish to see this rate fall still lower, it is not very probable we shall do so at present, or for some time to come.

Premature Births

Again prematurity takes first place in causes of deaths of infants under one year, and the danger during the first few weeks of life is well illustrated by the fact that of the seventy babies who died before completing one year, thirty-three (47·1 per cent.) died before the end of the first month. Again I must stress the importance of pre-natal work, because it is by this means we shall eventually bring about a reduction in premature births and consequently a fall in the infantile death-rate.

Home Visitation

This important work must take first place in the scheme of welfare, and it is satisfactory to see its continued expansion.

Artificial Sunshine

The subject of artificial sunshine (ultra-violet light) has been much before the public during the last few months, owing to a report issued by the Medical Research Council as to the value of this form of treatment. As many persons will have read through the medium of the lay press, the above Council is not so deeply enamoured of ultra-violet light as some who make such extravagant claims for it, claims which cannot be substantiated. At present the Welfare Department is without an ultra-violet ray lamp, but I understand the one belonging to Dr. Shaw, formerly in use at the Central Building, is to be replaced through the generosity of Mr. and Mrs. A. R. Cleaver, who are presenting a new lamp to the Voluntary Association.

Manfield Orthopædic Hospital

Good use has been made of the four beds in this Institution for which the Maternity and Child Welfare Committee has accepted responsibility. It is much better to treat the majority of orthopædic cases during early life than to allow them to progress in the hope they will "cure themselves," which they seldom do.

Maternity Homes

At the end of the year there were four registered maternity homes, having accommodation for fourteen patients. These were regularly visited by the Assistant Medical Officer, who is also Inspector of Midwives. There is no municipal maternity home in Northampton, but the Corporation has an agreement with the Northampton General Hospital for the reception of suitable women during confinement, these cases being approved by the Maternity Committee on the recommendation of the Assistant Medical Officer. It is hoped that the governors of the General Hospital will be able before long to erect a new department for maternity and gynæcology, which will be a very useful addition to the hospital.

Maternal Mortality

While sepsis is the ever dreaded danger during childbirth and the puerperium, it is not the only cause of death in connection with that anxious time. Three women died from puerperal septicæmia, in one of whom kidney disease was present to a marked degree before confinement and the patient had failed to carry out the doctor's instructions. In another, death was indirectly due to childbirth, as shewn in Dr. Bebbington's report. Four deaths from conditions associated with pregnancy and childbirth give a death-rate of 3·06 per thousand live births; the rate for England and Wales for the same period was 4·43. It is well to remember that when dealing with small figures only running into a few hundreds, one or two deaths, more or less, make a big difference in the rate, and it is not safe to draw any deductions.

VII.—HOUSING.

Housing Schemes

The Borough Engineer has again supplied the Department with particulars of the work done under the municipal housing schemes :—

Total number of houses completed between 1st January and 31st December, 1928, under the Corporation Schemes	229
Number of these within the Borough boundary ...	229
Total number of houses erected by the Corporation both within and without the Borough up to 31st December, 1928 (exclusive of 14 hutments) ...	2,118

This shews a falling off from the rate at which new houses were completed in 1927.

Other New Buildings

In addition to the above, the following building operations, plans for which had been approved by the Highways Committee, were carried out during the year :—

New houses—Subsidy 70 ; Non-subsidy 84	154
Additions to houses	22
Shops	7
Additions to shops	5
Conversion of houses into shops	15
Factories	3
Additions to factories	16
Additions and alterations to public houses	15
Public buildings	2
Additions to public buildings	4
Grandstands and additions to same	3
Electric light and power transformer station	1
Garages	57
Sheds	7
Temporary licensed buildings	4

Housing Acts

No attempt has been made at clearing out any large slum area, nor does there appear to be any sign of undertaking work of the kind on a big scale at present, owing to the difficulty of finding suitable dwellings for the tenants dispossessed. It is well to remember that it is just the slum dwellers, *i.e.*, the poorest of the poor, who are the most difficult to accommodate ; people with a large income can always find a house.

In Tables 16 and 17 will be found particulars relating to the condition at the end of the year of houses which had been represented in this and previous years.

Twenty-four houses were represented in 1928 (*see* Table 16). Fourteen were still occupied at the end of the year owing to the difficulty of finding accommodation for the tenants. When once a closing order is made on a dwelling, the tenants are in many cases in no hurry to vacate the premises, as they are no longer under an obligation to pay rent ; to live rent free is an

inducement to them to stay on, not making very strenuous efforts to find other houses.

On 31st December, nineteen houses with closing orders on them were still occupied, including some represented in previous years.

One house was dealt with under Section 3 of the Housing Act, 1925. The sanitary inspector reported that certain work required to be done to No. 30, St. Mary's Street to render it reasonably fit for human habitation. The Public Health Committee authorised the service of a notice giving sixty days in which to execute the work. Although this time was exceeded, the repairs and renovations were eventually completed to our satisfaction.

The staff made 385 visits of inspection under the Housing Consolidated Regulations, 1925, and in these defects were found in 296, chiefly want of cleanliness and repairs.

Public Health Acts

Five houses, or parts of houses, were certified by the Medical Officer of Health under the terms of Section 46 of the Public Health Act, 1875, as being in such a filthy or unwholesome condition that the health of the occupants was affected or endangered thereby, and that the cleansing and whitewashing were urgently required.

Prosecutions

It was not necessary to resort to legal action to bring about the abatement of any nuisance. Less severe measures were always effective.

Housing Statistics

The particulars for 1928, are set out below in the form required by the Ministry of Health.

Number of New Houses erected :—

(*a*) Total (including numbers given separately under (*b*))	383
(*b*) With State assistance under the Housing Acts :—	
(i) By the Local Authority	229
(ii) By other bodies or persons	70

1.—*Inspection of Dwellinghouses.*

(1) Total number of dwellinghouses inspected for housing defects (under Public Health or Housing Acts)	2,240
(2) Number of dwellinghouses (included under sub-head (1) above) inspected and recorded under the Housing Consolidated Regulations, 1925	385
(3) Number of dwellinghouses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	24
(4) Number of dwellinghouses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	1,126

2.—*Remedy of Defects without Service of Formal Notices.*

Number of defective dwellinghouses rendered fit in consequence of informal action by the Local Authority or their officers 499

3.—*Action under Statutory Powers.*

A.—Proceedings under Section 3 of the Housing Act, 1925 :—

(1) Number of dwellinghouses in respect of which notices were served requiring repairs 1

(2) Number of dwellinghouses rendered fit after service of formal notices :—

(*a*) By owners 1

(*b*) By Local Authority in default of owners 0

(3) Number of dwellinghouses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close 0

B.—Proceedings under Public Health Acts :—

(1) Number of dwellinghouses in respect of which notices were served requiring defects to be remedied 633

(2) Number of dwellinghouses in which defects were remedied after service of formal notices :—

(*a*) By owners 625

(*b*) By Local Authority in default of owners 0

C.—Proceedings under Sections 11, 14, and 15 of the Housing Act, 1925 :—

(1) Number of representations made with a view to the making of Closing Orders 24

(2) Number of dwellinghouses in respect of which Closing Orders were made 29

(3) Number of dwellinghouses in respect of which Closing Orders were determined, the houses having been rendered fit 1

(4) Number of dwellinghouses in respect of which Demolition Orders were made 24

(5) Number of dwellinghouses demolished in pursuance of Demolition Orders 10

See Appendix III. (*page* 58) *for the usual statistical tables.*

APPENDIX I.

REPORT OF THE CLINICAL TUBERCULOSIS OFFICER FOR THE YEAR 1928.

TUBERCULOSIS DISPENSARY,
MAY, 1929.

To the Medical Officer of Health and Chief Tuberculosis Officer.

SIR,

I beg to submit herewith my report on the anti-tuberculosis scheme for the year 1928.

Your obedient Servant,
N. B. LAUGHTON.

Notifications

One hundred and fifty-one cases of tuberculosis (all forms) were notified to the Medical Officer of Health during the year 1928, and of these 109 were pulmonary cases. The corresponding figures for the previous year were 153 and 123. In Tables T1 and T8 will be found a detailed classification of these cases with regard to the site of the lesion and age periods respectively.

Deaths

Below are tabulated the number of deaths and the death-rates from tuberculosis in 1928. The corresponding data for 1927 are given for comparison. It is encouraging to note that the 1928 figures show an appreciable improvement on those of the previous year.

TUBERCULOSIS DEATHS AND DEATH-RATES.

FORM.	1928.		1927.	
	NUMBER.	RATE.	NUMBER.	RATE.
Respiratory	86	0·91	101	1·08
Other Forms	14	0·15	19	0·20
Totals	100	1·06	120	1·28

Revision of Register

Under the instructions issued by the Ministry of Health in 1924 (Circular 549) for the deletion of cases from the register, the names of fifty-one notified persons were removed in 1928, made up as follows :—

(*a*) Thirty-three in which the diagnosis had not been established, and

(*b*) Eighteen in which the patient had attained a condition which might be regarded as a cure.

Particulars of cases thought to be suitable for deletion were

submitted to the Medical Officer of Health, who obtained the assent of the practitioner notifying or at present in charge, where possible.

On the last day of the year there were 528 cases on the Medical Officer of Health's register, 365 being pulmonary and 163 non-pulmonary.

Park Workers

At the end of 1928, eleven men were employed under the scheme for light work on the Parks.

Early Diagnosis

Speaking generally, the comparatively short period of sanatorium treatment stands out in relief as the brightest phase in the career of the tuberculous, for during this time one may confidently look for a gradual conquest of the infection, and an improvement in health, in the majority of cases. But before and after this period are phases more full of fate to every sufferer. The stage of the disease at the time of notification stands foremost as a determining factor in his outlook. The importance of an early diagnosis cannot be over-estimated. Unfortunately, the majority of patients, when they first come under medical observation, have passed beyond the earlier degrees of infection and their prospects are proportionately clouded. In too many instances the die is already cast when first they seek advice.

Home Life after Sanatorium

The post-sanatorium phase is also subject to undesirable influences which can be only partially controlled. The personal equation here counts for much. The average consumptive lacks the capacity for the self-discipline and perseverance which are necessary to maintain the health he has regained. His environmental conditions are often against him, and it is difficult to cohabit with those whose mode of life is of a kind that would be prejudicial to his well-being. Financial and domestic cares add their quota to the factors which lead to back-sliding and relapse.

Causes of Delay in Notification

Late notification appears to be due chiefly to the failure of the patient to seek advice from his doctor at an early date. The disease usually begins so insidiously that he is tempted to "carry on" at his work; meanwhile his chances of ultimate recovery are being gradually consumed. Ignorance of the cause of his symptoms, a natural indifference towards them, a dread of the disease and of the personal and financial difficulties that would arise if it were diagnosed, these all tend to a fatal delay.

Again, the symptoms of the disease in its initial stages, when the prospects of recovery at a sanatorium are highest, are often so slight that it is sometimes difficult to persuade an early case that treatment is necessary, that it holds out to him especially a golden opportunity.

Education of the public in the early recognition of a disease will only go so far when that recognition involves anxiety and financial worries. The existence of these often makes it difficult to convince a patient that he must focus his eyes on the future,

and be prepared if necessary to sacrifice much of the present in order to recover and to live.

Children are subject to medical examination when at school, and ordinarily this ceases at the age of fourteen. It is unfortunate that this medical decontrol occurs at the commencement of the young adult period, when there is an increasing tendency to tuberculous infection of the lungs. We have not yet reached the stage when, by a periodical examination of the whole community, the problem of the prevention of tuberculosis (and of other diseases also) could be tackled successfully at its root.

Observation of Suspects

It is to the general practitioner that one must look chiefly for the detection of persons suffering from tuberculosis, though, as already mentioned, the majority come under his notice for the first time at an undesirably late stage. It is expedient therefore that the facilities for diagnosis at the Dispensary be made full use of with regard to those cases in which there is any element of suspicion of the disease. To keep them under observation for a time does not brand them as tuberculous. In this connection it is encouraging to note a definite increase last year in the number of patients sent to the Dispensary by doctors for purposes of diagnosis.

Value of X-rays

It is universally recognised that the use of x-rays, taken in conjunction with clinical examination, is an invaluable aid in tuberculosis work, notably in the diagnosis of early disease. In many cases it enables one to come to a prompt decision, thus reducing the period of observation and relieving the patient, it may be, of much needless anxiety. Photographs supply valuable evidence indicating the type and extent of the disease, data useful in deciding as to the best treatment, and they provide a permanent record for future reference. Patients treated at a sanatorium by artificial pneumothorax require the treatment continued after discharge and this can be done most conveniently at the Dispensary if there is x-ray control. It is probable, too, that an installation would encourage practitioners to send up more cases for an opinion. It also might induce a more regular attendance of those patients who periodically report for examination, and in whom it is of importance to maintain an active interest in their progress. In conclusion it may be emphasised that the diagnosis and efficient treatment of a patient in the early phases means the minimum length of treatment and the best results. Diagnosis in the intermediate stages means at the best prolonged treatment, possibly repeated, and relatively poor prospects of ultimate complete recovery. It is clear, therefore, that the getting of early cases by such means as are available must lead to an all-round economy and increased efficiency of the scheme.

Treatment by Ultra-violet Light

An increasing number of patients have received treatment by ultra-violet light at the General Hospital. The majority of these suffered from tuberculous glands,a condition which responds

well to this form of therapy. In most cases there was definite improvement in the general condition of the patients and in the lesions being treated.

Anti-tuberculosis Measures

The anti-tuberculosis measures carried out in the Borough followed on the lines of previous years.

It may be noted in passing that the total number of attendances at the Dispensary exceeded that of 1927 by one hundred and eighty-eight, and the average attendance per patient shows a small increase. The number of "contacts" of tuberculous persons examined (220) represents an increase of seventy. More domiciliary visits were paid by the Tuberculosis Officer, 290 as compared with 185 in the previous year.

Tuberculosis Dispensary

ATTENDANCES :—

Total number of attendances of patients, etc. 1,420

Number of patients, etc. attending :—

Males	336	
Females	268	 604

Two hundred and twenty examinations of "contacts" were made, and of the 168 individuals examined three were subsequently notified. Two hundred and twenty-nine examinations were made at the request of general practitioners for diagnosis, and of the eighty-nine persons examined, eighteen were subsequently notified. These figures are included in the above totals.

The average number of attendances per patient was 2·35.

In addition to examinations at the Dispensary, the Tuberculosis Officer made 290 visits to the homes of patients, either at the request or with the permission of general practitioners.

The visits made by the nurse from the Dispensary were :—

Number of investigations after notification in the case of :—

Pulmonary Tuberculosis	97	
Other Forms of Tuberculosis ...	34	 138
Deaths from Tuberculosis	7	
Re-visits, etc.		1,481
Total		1,619

The following is a summary of the work done at the bacteriological laboratory attached to the Dispensary :—

SPUTUM, URINE, ETC. EXAMINED.			
NUMBER OF SUSPECTED CASES.	REPORTS MADE.		
	POSITIVE.	NEGATIVE.	TOTAL.
405	120	373	493

Welford Road Tuberculosis Hospital

Owing to the outbreak of smallpox it was found necessary in the autumn to meet the emergency by using Welford Road Hospital for the treatment of infectious fever patients. The Superintendent of Creaton Sanatorium helpfully co-operated in providing accommodation for the tuberculosis patients at that institution from August 21st to October 25th. Despite this abeyance of Welford Road Hospital as a tuberculosis hospital for nine weeks, the number treated there during 1928, was greater than in 1927, very good use being made of the beds up to the time of transference to Creaton.

In view of the fact that the cases treated were in the intermediate or advanced stages, and hence unsuitable for a sanatorium, it is interesting to note that of the forty-nine cases discharged, twenty-six, or 53·1 per cent., were quiescent or improved. This fact should dispose of the belief commonly held that if a patient is too ill to go to a sanatorium his progress must necessarily be retrogressive.

The following are the statistics for 1928 :—

	MALES.	FEMALES.	TOTAL.
Remaining at end of 1927 ...	7	9	16
Admitted during 1928	36	20	56
Discharged during 1928	31	18	49
Died during 1928	8	7	15
Remaining at end of 1928 ...	4	4	8

Of the fifty-six cases admitted, forty were insured persons. Fifty-three were admitted for isolation and three for observation.

Condition on discharge :—

Quiescent	1
Improved	25
In Statu Quo	13
Declining	6
Not Tuberculosis	4

Sanatoria

Below is a summary of the Northampton cases dealt with in sanatoria during 1928 :—

	MALES.	FEMALES.	TOTAL.
Remaining at end of 1927 ...	20	11	31
Admitted during 1928	32	26	58
Discharged during 1928	35	22	57
Died during 1928	1	—	1
Remaining at end of 1928 ...	16	15	31

Of the fifty-eight cases admitted, thirty-two were insured persons.

In the treatment of the above the following institutions were made use of :—

Creaton Sanatorium, Northampton ;
Manfield Orthopædic Hospital, Northampton ;
Royal Sea-Bathing Hospital, Margate ;
Maltings Farm Sanatorium, Nayland, near Colchester ;
Royal National Orthopædic Hospital (Country Branch), Brockley Hill, Stanmore ; and
North Wales Sanatorium, Denbigh.

On discharge a report is sent from the sanatorium authorities in respect of each patient, giving certain information of the condition at the time of leaving. The immediate results of treatment amongst cases which left sanatoria during the year 1928 were :—

	NUMBER.	PER CENT.	
Disease Reported to be :—			
Arrested	2	3·5	77·2 per cent.
Quiescent	17	29·8	
Improved	25	43·9	
Not Improved	13	22·8	
Totals	57	100·0	

In addition, one went privately to the Eversfield Chest Hospital, St. Leonards-on-Sea ; four to the Royal National Hospital, Ventnor ; one to the Cambridgeshire Tuberculosis Colony, Papworth ; and one to Wensleydale Sanatorium, Aysgarth, Yorkshire.

There was no need for compulsory removal of any case to hospital under Section 62 of this Act. — Public Health Act, 1925

It was not necessary to take any action under these Regulations, which deal with tuberculous employees in the milk trade. — Public Health (Prevention of Tuberculosis) Regulations, 1925

Table T1. Northampton, 1928.

Tuberculosis. Classification of New Cases.

Classification.	Notified Cases.			Deaths of Cases not Notified.		
	M.	F.	Total.	M.	F.	Total.
Pulmonary :—						
Lung and Pleura	61	47	108	2	2	4
Larynx	1	—	1	—	—	—
	62	47	109*	2	2	4*
Meninges and Brain	5	3	8	1	3	4
Peritoneum and Intestines ...	3	3	6	—	—	—
Spinal Column	4	2	6	—	—	—
Joints	6	—	6	—	—	—
Cervical Glands	3	7	10	—	—	—
Other Organs	5	1	6	1	—	1
Totals	88	63	151	4	5	9

*A total of 113 fresh instances of pulmonary tuberculosis.

Table T2. Northampton, 1928.

Pulmonary Tuberculosis Investigations. Duration of Illness.

Period.	Notified Cases.	Deaths of Cases not Notified.	Total.
Under 6 months	26	—	26
Over 6 months and under 1 year	21	—	21
Over 1 year and under 2 years ...	18	—	18
Over 2 years and under 3 years ...	15	—	15
Over 3 years and under 4 years ...	8	—	8
Over 4 years and under 5 years ...	3	—	3
Over 5 years	11	1	12
Unascertained	7	3	10
Totals	109	4	113

Table T3. Northampton, 1928.

Pulmonary Tuberculosis Investigations. Sex and State.

	MALES.	FEMALES.	TOTAL.
Single	23	20	43
Married	34	23	57
Widowed	3	2	5
Unascertained	4	4	8
Totals	64	49	113

Table T4. Northampton, 1928.

Pulmonary Tuberculosis Investigations. Degree of Home Isolation Found.

	MALES.	FEMALES.	TOTAL.
Number having separate Bedrooms	24	16	40
Number having separate Beds (only)	5	2	7
Number having no Isolation	28	26	54
Number in Institutions	3	2	5
Unascertained	4	3	7
Totals	64	49	113

TABLE T5. NORTHAMPTON, 1928.

TUBERCULOSIS DEATHS. PERIOD ELAPSING BETWEEN NOTIFICATION AND DEATH.

PERIOD BETWEEN NOTIFICATION AND DEATH.	MALES.	FEMALES.	TOTAL.
(1) PULMONARY TUBERCULOSIS :—			
Not notified	2	—	2
One month	9	3	12
1—6 months	11	10	21
6—12 months	1	6	7
12—18 months	5	6	11
18—24 months	4	3	7
2—3 years	10	2	12
3—4 years	2	3	5
4—5 years	1	2	3
5 years and over	4	2	6
Totals	49	37	86
(2) TUBERCULOSIS OTHER THAN PULMONARY :—			
Not notified	2	3	5
One month	5	2	7
1—6 month	—	1	1
6—12 months	1	—	1
Totals	8	6	14

Table T6. Northampton, 1928.

Pulmonary Tuberculosis. Occupational Incidence and Mortality.

OCCUPATION	New Cases	Deaths Registered	OCCUPATION	New Cases	Deaths Registered
Shoe Operatives:—					
(*a*) Clicker	6	5	Lamplighter	1	1
(*b*) Laster	6	2	Last Maker	—	1
(*c*) Finisher	6	2	Leather Dresser	3	—
(*d*) Roughstuff and Pressman	1	4	Milk Roundsman ...	2	—
(*e*) Warehouse and General	3	4	Motor Driver	1	—
(*f*) Female Worker	12	10	Motor Mechanic	1	1
	34	27	Music Teacher	—	1
			Newsagent	—	1
			Newspaper Roundsman ...	1	1
			Nurse	1	—
Army Pensioner	1	—	Painter	2	—
Blouse Machinist ...	1	—	Photographer's Assistant	—	1
Boiler Man	1	—	Polisher (Motor Works)	1	1
Boot Polish Maker...	—	1	Post Office Worker	1	2
Charwoman	1	—	Publican	1	—
Clerk	7	2	Railway Worker ...	3	4
Crane Driver	—	1	Schoolchild	3	1
Disinfecting Officer...	1	—	Schoolmaster	—	1
Engineer	2	1	Schoolmistress	—	1
Farm Manager	—	1	Secretary	—	1
Fishmonger	—	1	Shop Assistant	3	2
Gardener	1	1	Stableman	1	1
Gold Stamper	—	1	Window Cleaner ...	1	1
Greengrocer	1	1	No Occupation	9	4
Grocer	1	1			
House Decorator ...	1	1			
Housekeeper	—	1			
Housewife	20	14			
Insurance Agent ...	1	—			
Joiner's Machinist ...	1	—	Totals	113	86
Labourer	4	6			

TABLE T7. NORTHAMPTON, 1928.

PULMONARY TUBERCULOSIS. DISPOSAL OF NOTIFIED CASES.

CLASSIFICATION.	NUMBER.	PER CENT.
Received Residential Treatment :—	62	56·9
At Creaton Sanatorium 28		
Welford Road Hospital 17		
Both Creaton Sanatorium and Welford Road Hospital 11		
Wensleydale Sanatorium, Aysgarth 1		
Union Infirmary 2		
General Hospital 2		
Wyton Sanatorium, Huntingdon, just prior to notification in the Borough 1		
Refused Residential Treatment :—	29	26·6
At Creaton Sanatorium 0		
Welford Road Hospital 7		
Any Residential Institution 22		
Too ill for removal	8	7·4
Not suitable for Residential Treatment	4	3·7
Residential Treatment not considered necessary...	2	1·8
Not seen (at request of doctor in charge)	3	2·7
Dead on receipt of notification	1	0·9
Totals	109	100·0

Table T8. Northampton, 1928.

Tuberculosis. New Cases and Mortality.

Age Periods.	New Cases.				Deaths.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	M.	F.	M.	F.	M.	F.	M.	F.
0–1 years	—	—	1	—	—	—	—	—
1–5	—	—	5	6	—	—	3	3
5–10	—	1	4	9	—	—	—	2
10–15	1	1	4	1	1	—	2	—
15–20	4	5	2	—	3	4	—	—
20–25	9	10	1	3	6	10	—	1
25–35	22	13	4	—	18	11	2	—
35–45	10	9	3	—	5	5	1	—
45–55	10	7	1	—	8	2	—	—
55–65	6	1	2	—	6	3	—	—
65 and upwards	2	2	1	—	2	2	—	—
Totals	64	49	28	19	49	37	8	6

See also remarks of Medical Officer of Health on pages 27 and 28.

APPENDIX II.

REPORT OF THE ASSISTANT MEDICAL OFFICER FOR MATERNITY AND CHILD WELFARE FOR THE YEAR 1928.

To the Medical Officer of Health.

SIR,

The report for the year 1928 on the maternity and child welfare work in the Borough is now completed, and is presented to you for incorporation in your Annual Report.

The report is mainly on the work of the previous Medical Officer, Dr. Emily H. Shaw, as I commenced duties on December 1st, 1928.

E. F. BEBBINGTON.

INFANT WELFARE CENTRE,
DYCHURCH LANE,
MAY, 1929.

General Arrangements

There has been no alteration in the general arrangements during the year 1928. The staff remains as before, except for a change in the Assistant Medical Officer. There are still four health visitors and one clerk whose whole time is occupied with work connected with maternity and child welfare.

Infant Mortality

The number of infant deaths during the year is eight less than in 1927. The infant mortality is 53·5. This is 11·5 below that for England and Wales and 7·4 below that recorded for the Borough in 1927. Seventy children died before reaching the age of one year.

The greatest number of infant deaths is attributed to prematurity (*see* Table M. & C.W. 1). This figure shews a decrease of seven on the number for 1927.

In 1927 the health visitors visited fifty-six live premature babies. Of these, thirty-five (62·5 per cent.) died. In 1928 the health visitors visited forty-four live premature babies. Of these, nineteen (43·2 per cent.) died, fifteen as a direct result of their prematurity. One died at the age of seven days when the death was certified as due to icterus neonatorum ; one child died at one hour of heart failure ; and one died at two months of convulsions and acute bronchitis ; also one twin died at five weeks of marasmus.

Of these seventy babies who died during the year, thirty-three lived under four weeks ; thirty under two weeks and three between two and four weeks. Of the thirty who died under two weeks, ten were girls and twenty boys. Twenty-one were premature, six were twins (all premature), and three were illegitimate babies.

Of the three who died between two and four weeks, two were girls and one was a boy. Of these three also, two were premature and one illegitimate. Of the thirty-seven who died between four weeks and one year, fourteen were girls and twenty-three were boys. Three were premature and four illegitimate.

There is a decrease in the number of babies who lived under four weeks. Of the seventy babies who died, six were certified as having died of congenital malformations, viz. : two of spina bifida, one of very bad cleft palate causing inability to take nourishment, one of congenital shortening of mesentery, and two of heart disease. Five died from atelectasis of lungs.

Notification of Births

1,308 live births were registered in 1928. 1,312 live births and forty-five stillbirths were notified, that is to say that a total of 1,357 were notified (*see* Table M. & C.W. 3). Table M. & C.W. 4 shews the sources of notification.

The health visitors investigated 1,265 births, thirty-four of which were not notified (*see* Table M. & C.W. 5). One hundred and twenty-six notified and eight non-notified were not visited by the health visitors. These births occurred in the larger type of house, or the mothers were resident in the County and came to the maternity homes for their confinements, after which they returned to their own homes. Eleven pregnancies resulted in twins, so that the 1,265 births visited represented 1,254 separate confinements. 428 live and sixteen stillborn were the children of primiparæ. Of the fifty-seven babies born prematurely, twenty-eight were the children of primiparæ (twenty-two live and six stillborn) and twenty-nine of multiparæ (twenty-two live and seven stillborn). This number (fifty-seven) includes five sets of twins.

Forty-five stillbirths were notified. Of these, thirty-six were visited by the health visitors, who also investigated two of the non-notified stillbirths.

Sixteen occurred in primiparæ. The following table shews the classification of causes :—

PREMATURE BIRTH 6
- Causes of Stillbirth :—
  - (*a*) Prematurity 3
  - (*b*) Shock (fall) 2
  - (*c*) Placenta Prævia 1

FULL TERM INSTRUMENTAL LABOUR 6
- Causes of Stillbirth :—
  - (*a*) Prolapse of Cord 1
  - (*b*) Breech 1
  - (*c*) Prolonged Labour 2
  - (*d*) Large Child 1
  - (*e*) Cause Unknown 1

FULL TERM NON-INSTRUMENTAL LABOUR 4
Causes of Stillbirth :—
(*a*) Malposition of Fœtus 2
(*b*) Shock (Mother) 1
(*c*) Cause Unknown (illegitimate) 1

The health visitors also visited twenty-two stillborn in multiparæ. The following table shews the classification of causes :—

PREMATURE BIRTH 8
Causes of Stillbirth :—
(*a*) Prematurity 1
(*b*) Fall 1
(*c*) Ante-partum Hæmorrhage 2
(*d*) Kidney Disease 1
(*e*) Influenza 1
(*f*) Cause Unknown 2

FULL TERM INSTRUMENTAL LABOUR 4
Causes of Stillbirth :—
(*a*) Albuminuria (Macerated Fœtus) 1
(*b*) Cause Unknown 3

FULL TERM NON-INSTRUMENTAL LABOUR 10
Causes of Stillbirth :—
(*a*) Malposition of Fœtus 4
(*b*) Cause Unknown 6

NOTE.—Fifteen of above multiparæ had previously had none stillborn, five had had one stillbirth, one had had two stillbirths, and one had had three stillbirths in all.

Home Visitation

Visits to Expectant Mothers :—
First Visits 232
Total Visits 720
Visits to Infants under One Year of Age :—
First Visits 1,242
Total Visits 8,071
Visits to Children from One to Five Years of Age :—
Total Visits 8,710

The total number of visits paid by the health visitors was 18,560. This includes those enumerated above and visits to houses where stillbirths had occurred, where a baby under one year of age had died, and all notified cases of puerperal fever, puerperal pyrexia, ophthalmia neonatorum, pneumonia, etc. in women and children.

The work of the health visitors continues to grow. The birth-rate shews a slight increase compared with last year and there is a considerable increase in the number of houses on the outskirts of the Town, which makes the distances to be traversed by the nurses greater every month.

Sunshine Treatment

During 1928, fifteen children were treated with ultra-violet rays. Four of these were under treatment at the beginning of the year and eleven commenced during the year. Of these fifteen, five had two courses and one three, making in all a total of twenty-two courses of treatment. The Department was closed at the end of July owing to loss of the lamp. Most of the children, who suffered from rickets, anæmia, debility, etc. shewed marked improvement. The regularity of the attendances was sufficient evidence of the mothers' belief in the treatment. The chief improvement noticed at home was the mental change in the children. It appears that the most irritable of babies became creatures of joy and happiness after one or two exposures to the rays. This of course appeals to the mothers.

Manfield Orthopædic Hospital

The Maternity and Child Welfare Committee still undertakes to accept responsibility for four beds at the Manfield Orthopædic Hospital for the reception of children under school age recommended by the Assistant Medical Officer. For each of these beds it pays £2 12s. 6d. per week when occupied. A Sub-Committee decides what proportion, if any, of this should be paid by the parents of the child.

During the year six children were admitted to the Hospital. All these, and one from the previous year, were under treatment during 1928. Five were discharged during the year, and two were still under treatment at the end of the year. The average length of stay in the Hospital was 102 days. Six were suffering from defects due to rickets, viz.: bow legs and knock knees, and one to a malunited fracture of the femur. All shewed marked improvement on discharge and attended the out-patient clinic for a considerable period after they returned home.

Welfare Centres

Table M. & C.W. 6 gives, as usual, the number of attendances and consultations at the eight centres in the Town, including the two held at the Central Building. There is very little alteration in the number of mothers and children attending the welfare centres. In 1927 the total average attendance of mothers was 337, of babies and toddlers 405, and of consultations 303. This year the corresponding figures are 362, 421, and 308. The ladies of the Northampton Maternity and Infant Welfare Voluntary Association continue their good work on the social side. During the year classes were again held in cooking and sewing.

Since the Astor Challenge Shield is now the property of the Voluntary Association, no entry for competition took place this year but, by unanimous decision, Northampton's entry was considered equal to the efforts of the previous three years when the Shield was won.

Midwives

Twenty-eight midwives notified their intention to practise during the year. Ten of these were attached to the Queen's Institute of District Nursing at different times and four to the Poor Law Institution. There are still two bona-fide midwives

taking cases. Sixty-one routine visits of inspection and fourteen special visits have been paid by the Assistant Medical Officer, who is also Inspector of Midwives. Table M. & C.W. 7 summarises the notifications received from midwives.

The Queen Victoria nurses have attended five hundred and eight cases, including those admitted to the Maternity Home.

Maternity Homes

Twenty-one patients were admitted to the Colwyn Road Maternity Home during 1928. The Home was closed at the end of March, hence the small number of admissions. The average length of stay of patients was fourteen days. During the short period the Home was open it was visited periodically by the Assistant Medical Officer and conditions were found to be satisfactory.

Three new maternity homes were registered during the year. One of these is St. Saviour's Home for Mothers and Babies, Kingsthorpe; the other two have been opened by midwives practising in the Town. Ten visits of inspection have been paid to these and existing maternity homes, of which there are four not including St. Saviour's Home.

Pre-natal Work

Thirty-nine pre-natal sessions were held at the Central Building during the year and these were attended by one hundred and eighty-seven patients. Pre-natal clinics were held, with the exception of the months of October and November, at the Queen's Institute of District Nursing. Sixteen sessions were held and ninety-two patients were seen. In addition to these, two hundred and seven pregnant women were seen and advised by the Assistant Medical Officer at the welfare centres and elsewhere.

Dental Treatment

The arrangements for dental treatment remain as before.

Pregnant and nursing mothers and children under school age are treated on the recommendation of the Assistant Medical Officer by the School Dental Officer at the School Clinic on two evenings each week. It is arranged that payment is made either at the Clinic at the time of treatment, or by instalments at the welfare centres, or at the Central Building Offices.

During the year the cost of material was about £38 and bills amounting to £58 have been sent to twenty-two patients. Nearly £46 has been collected from these and from women who had accounts outstanding at the end of the previous year. In addition to this just under £15 has been collected in petty fees, for which no bills were issued at the Clinic. In Table M. & C.W. 8, the numbers dealt with and the forms of treatment given are set out.

Free Milk

The Milk Sub-Committee of the Maternity and Child Welfare Committee sits each week to consider applications for free milk for pregnant and nursing mothers and for children under one year of age. If the income of the family is below a certain scale (the income is ascertained from replies to inquiries made of

employers, the Employment Bureau, etc.), one pint of milk is allowed daily for one month, or two pints in the case of twins or of a mother who is six months' pregnant and has a baby under one year. At the end of the month, if the milk is still wanted, a fresh application form has to be sent in and further inquiries are made of employers, etc. All applicants are known personally to the health visitors and the Assistant Medcial Officer, and the utmost care is taken to prevent ineligible people from obtaining this assistance. Following a communication from the Ministry of Health in March, 1928, poor law applicants were precluded from obtaining milk through the Milk Sub-Committee of the Maternity and Child Welfare Committee directly. Suitable applicants in receipt of poor law relief however, may be recommended by the Assistant Medical Officer for the allowance of milk by the Guardians. 17,908 pints of "Pasteurised" milk were supplied under contract with local firms at a cost of about £186. 624 applications were considered by the committee, of which 570, including 144 renewals, were granted. Fifty-four applications were refused.

Dried Milk

"Cow and Gate" dried milk is sold at cost price at the Central Building. In ordinary circumstances this milk is only allowed until the baby is one year old and is not allowed to women in receipt of free milk. 8,907 pounds were sold to 240 separate customers during the year. This represents a weight of practically four tons at a cost of £668, all of which was refunded by the mothers.

Puerperal Fever

Eight cases of puerperal fever occurred (one non-notified) during the year. Five were treated at the General Hospital; three of these recovered, two died, one of which developed mania before death. The other died as a result of sepsis contracted in a breech delivery. Three cases were nursed at home and all made good recoveries.

Puerperal Pyrexia

Thirteen cases were notified as suffering from puerperal pyrexia. Eight were removed to Hospital; in two of these pyrexia was due to venereal disease. The other five cases remained at home. One had a breast abscess, one had pleurisy, one had kidney trouble, and two had difficult instrumental labours. They all made good recoveries, except the one reported as suffering from kidney trouble, who died of puerperal fever.

Conditions Associated with Pregnancy

Apart from puerperal fever and pyrexia, one woman died as a result of childbirth. The birth took place in the General Hospital, the baby being stillborn. The stillbirth was probably due to placenta prævia. The mother recovered sufficiently for discharge, but afterwards developed paralysis due to cerebral embolism following femoral thrombosis, and died.

Ophthalmia Neonatorum

Sixteen cases of ophthalmia were notified. Six were patients of doctors and nine of midwives. There was also one institutional case. Two attended the General Hospital as out-patients, three were admitted, and ten were treated at home. Swabs were taken in fourteen cases and gonococci found in three. Ten were boys and six were girls.

In eleven cases the discharge commenced during the first week, and four in the second. In eight cases there is a history of the mother having had a vaginal discharge. In no case was there any impairment of vision. The ultimate result of one case is unknown, the mother and child afterwards leaving the Town. (*See* Table M. & C.W. 9).

Diarrhœa and Enteritis

Two babies under the age of two years died from diarrhœa and enteritis. The corresponding figure for last year was seven.

TABLE M. & C.W. 1. NORTHAMPTON, 1924–1928.

INFANT MORTALITY. CAUSES OF DEATH.

CAUSES OF DEATH.	1924	1925	1926	1927	1928
Atrophy, Debility, and Marasmus	14	15	7	8	5
Convulsions	4	2	11	4	3
Bronchitis and Pneumonia	15	18	10	7	13
Whooping Cough	5	5	4	8	—
Measles	1	3	—	—	2
Premature Birth	20	27	15	32	25
Diarrhœa, Enteritis, and Gastritis	5	8	8	4	1
All Other Causes	16	20	17	15	21
TOTAL DEATHS	80	98	72	78	70
TOTAL LIVE BIRTHS	1534	1471	1309	1281	1308
INFANT MORTALITY	52·1	66·6	55·0	60·9	53·5

TABLE M. & C.W. 2. NORTHAMPTON, 1928.

INFANT MORTALITY. DEATHS FROM CERTAIN GROUPS OF DISEASES.

	NUMBER.	PROPORTION PER CENT.
Common Infections	3	4.3
Diarrhœal Diseases	1	1.4
Premature Birth	25	35.7
Wasting Diseases	5	7.2
Tuberculous Diseases	—	—
All Other Causes	36	51.4
Totals	70	100.0

TABLE M. & C.W. 3. NORTHAMPTON, 1928.

COMPARISON BETWEEN THE NUMBER OF BIRTHS WHICH WERE REGISTERED AND THOSE WHICH WERE NOTIFIED.

	MALES.	FEMALES.	TOTAL.
Number of Live Births Registered	663	645	1308
Number of Births Notified	702	655	1357
Number of Live Births Notified	671	641	1312

TABLE M. & C.W. 4. NORTHAMPTON, 1928.

NOTIFICATION OF BIRTHS. SOURCES OF NOTIFICATION.

	NUMBER.	PROPORTION PER CENT.
Medical Practitioners	541*	39.9
Certified Midwives	679	50.0
Parents and Others	137	10.1
Totals ...	1357	100.0

*Includes 92 also notified by midwives.

TABLE M. & C.W. 5. NORTHAMPTON, 1928.

NOTIFICATION OF BIRTHS. NUMBER AND CLASSIFICATION OF NOTIFIED AND NON-NOTIFIED CASES OF BIRTH, THE CIRCUMSTANCES ATTENDING WHICH WERE THE SUBJECT OF INVESTIGATION.

Classification.	LIVE BIRTHS.								STILLBIRTHS.							
	MATURE.				PREMATURE.				MATURE.				PREMATURE.			
	Single.		Multiple.		Single.		Multiple.		Single.		Multiple.		Single.		Multiple.	
	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.
	1116	55	12	0	33	2	9	0	23	2	0	0	12	0	1	0
Totals.	1171		12		35		9		25		0		12		1	
	1183				44				25				13			
	1227								38							
	1265															

Table M. & C.W. 6. Northampton, 1928.

Maternity and Infant Welfare Centres. Statistics.

CENTRE.	DAY OF MEETING (2.30—4.30 P.M.).	AVERAGE ATTENDANCE PER WEEK.			Average Number consulting Doctor per Session.
		Mothers (incl. Expectant Mothers).	Expectant Mothers.	Babies and Toddlers.	
Abington Avenue	Thursdays	62	2	66	50
Central Building	Wednesdays	38	2	45	40
Central Building	Thursdays	50	2	58	38
Doddridge Memorial	Tuesdays	44	3	54	43
Far Cotton	Fridays	32	1	42	34
Kingsthorpe	Tuesdays	28	1	33	25
St. Edmund's	Fridays	53	2	60	43
St. Sepulchre's ...	Wednesdays	55	2	63	35
	Totals	362	15	421	308

TABLE M. & C.W. 7. NORTHAMPTON, 1928.

MIDWIVES ACTS. NOTIFICATIONS RECEIVED FROM MIDWIVES.

NATURE OF REPORT.	MIDWIVES NOTIFYING.	NO. OF REPORTS.	REMARKS.
Records of Sending for Medical Help ...	18	176	Mother's condition 126 Infant's condition 49 Mother and Infant 1
Notifications of Still-birth	4	12	Full Term ..... 9 Premature 3
Notifications of Death	0	0	Mothers ..... 0 Infants 0
Notifications of Artificial Feeding ...	12	32	Mother's condition 24 Infant's condition 6 Mother going to work or not wishing to feed her baby 2
Notifications of Liability to be a Source of Infection	7	9	—
Notifications of Having Laid Out a Dead Body	2	2	Mother ..... 1 Old Man 1
Total	19	231	—

Table M. & C.W. 8. Northampton, 1928.

Summary of Dental Operations.

Nature of Operation, etc.	Mothers.	Children.	Totals.
Number seen	38	92	130
Number treated	31	87	118
Number of attendances	221	164	385
Number of teeth extracted	140	181	321
Number of administrations of local anæsthetic	42	99	141
Number of fillings	33	1	34
Number of linings	12	1	13
Number of teeth treated with nitrate of silver	4	219	223
Number of dressings	24	—	24
Number of scalings	4	2	6
Number of artificial plates	22	—	22
Number of plate repairs	3	—	3
Number of teeth on plates	259	—	259
Number of other operations	23	1	24
Number completed	18	69	87
Number partly completed, continued to 1929	12	18	30

Table M. & C.W. 9. Northampton, 1928.

Ophthalmia Neonatorum. Analysis of Cases Notified, with Ultimate Result.

Cases Notified.	Treated.		Ultimate Result.			
	At Home.	In Hospital.	Vision Unimpaired.	Vision Impaired.	Total Blindness.	Died.
16	10	6*	16†	—	—	—

*Three as in-patients and two as out-patients at the General Hospital and one treated in the Poor Law Institution.

†Includes one left the Town, result unknown, and two others which died four months and eleven months later from other causes.

See also Section VI. of Medical Officer's Report (pages 29 and 30).

APPENDIX III.

STATISTICAL TABLES.

Table 1. Northampton, 1919–1928.
Natural Increase of Population in Each Year of the Decennium.

YEAR (MIDDLE)	POPULATION (TOTAL)	BIRTHS	DEATHS	NATURAL INCREASE OF POPULATION	INCREASE PER 1,000
1919	92653	1411	1218	193	2·1
1920	92950	2248	1047	1201	12·9
1921	92300	1881	964	917	9·9
1922	92950	1646	1046	600	6·4
1923	93230	1662	1086	576	6·2
1924	93590	1534	1036	498	5·3
1925	93970	1471	1116	355	3·8
1926	93740	1309	1064	245	2·6
1927	93260	1281	1124	157	1·7
1928	94270	1308	1060	248	2·6

Table 2. England and Wales and Northampton, 1919–1928.
Birth-rates in Each Year of the Decennium.

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
England and Wales ...	18·5	25·4	22·4	20·6	19·7	18·8	18·3	17·8	16·7	16·7
Northampton	15·3	24·2	20·4	17·7	17·8	16·4	15·6	14·0	13·7	13·9

Table 3. England and Wales and Northampton, 1919–1928.
Death-rates in Each Year of the Decennium.

	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
England and Wales ...	13·8	12·4	12·1	12·9	11·6	12·2	12·2	11·6	12·3	11·7
Northampton	13·7	11·3	10·4	11·3	11·6	11·1	11·9	11·4	12·0	11·3

Table 4. Northampton, 1928. Meteorological Data.

Month.	Rainfall.				Temperature.						Direction of Wind.				Quarters.
	Total inches.	Greatest in 24 hours. Depth.	Greatest in 24 hours. Date.	Days on which 0.01 in. or more fell.	Mean.	Maximum. Deg.	Maximum. Date.	Minimum. Deg.	Minimum. Date.	No. of Nights at or below 32 deg.	S. W. Quadrant including W. Days.	S.E. Quadrant including S. Days.	N.E. Quadrant including E. Days.	N.W. Quadrant including N. Days.	
January ...	3·12	0·35	21	23	41·59	55·0	6, 21	23·5	1	3	18	4	—	9	First.
February	1·86	0·38	29	16	43·08	54·5	15	30·8	27	2	14	8	2	5	
March	1·64	0·60	31	19	43·87	60·0	20	24·2	12	4	6	14	7	4	
April	1·17	0·29	12	16	48·53	70·0	26	30·5	17, 18	3	7	9	5	9	Second.
May	0·88	0·35	15	12	52·84	77·0	30	35·0	9, 15	—	3	4	14	10	
June	2·35	0·53	19	18	57·65	74·8	25	41·2	4	—	16	2	4	8	
July	3·06	1·15	31	9	64·56	88·0	15	48·8	30	—	18*	—	1	12	Third.
August ...	1·58	0·34	22	17	61·71	79·0	11	47·0	5	—	17	2	3	9	
September	1·07	0·29	9	8	56·02	79·0	5	37·5	27	—	9	4	8	9	
October ...	3·67	0·70	26	20	50·75	64·5	8	35·0	1	—	15	5	3	8	Fourth.
November	2·64	0·42	21	22	45·75	59·0	12	30·0	10	1	11	4	8	7	
December	2·13	0·46	30	14	38·77	54·0	25	25·5	15, 16	11	8	3	8	12	
Year 1928	25·17	1·15	July 31	194	50·43	88·0	July 15	23·5	Jan. 1	24	142	59	63	102	

* Includes one "calm" day.

Table 5. Northampton, 1928.

Summary of Routine Work carried out by the Sanitary Inspectors.

	Number of Inspections, etc.	No. at which Nuisances, Defects, etc., were Found.
1.—Total Number of Inspections and Visits	16281	
2.—Number of Premises at which Nuisances were Found		1395
3.—Total Number of Houses Inspected	2240	1150
4.—Number of these Houses Repaired		719
5.—Number of these Houses Cleansed and Whitewashed		629
6.—Number of Houses Cleansed after Certificate of M.O.H. (Sec. 46, P.H.A. 1875)		5
7.—Number of First Visits made in consequence of Complaints by Residents	612	506
8.—Statutory Notices Served	639	
9.—Drains :—		
Tested by Smoke Test	12	3
Tested by Volatile Test	33	10
Tested by Water Test	0	0
Exposed under Sec. 41, P.H.A. 1875	1	1
Drains reported choked		121
Drains reconstructed		55
Drains repaired		15
Bath, lavatory, or sink waste pipes disconnected from drains		0
New pans fixed to closets		30
Indoor soil pipes abolished		0
Closets supplied with flushing apparatus		2
10.—Contraventions of Bye-laws :—		
Animals kept so as to be a nuisance		3
Animals kept in contravention of Bye-laws		1
Accumulations of manure, etc., at :—		
(*a*) Houses		3
(*b*) Other premises		20
Other contraventions		0
11.—Other Nuisances :—		
Overcrowding in houses		12
Yard pavings re-laid or repaired		81
Spoutings repaired or renewed		190
New slop sinks fixed		25
Inspections of courts and alleys	14	6
Houses supplied with town water		8
Chimney observations	25	7
Miscellaneous nuisances		133

Continued on next page.

TABLE 5.—*continued.*

	Number of Inspections, etc.	No. at which Nuisances, Defects, etc., were Found.
12.—Factories and Workshops :—		
Number of Factories Inspected	145	38
Number of Workshops Inspected	218	12
Number of Workplaces Inspected	125	18
Number of Outworkers' Premises Inspected	108	7
13.—Dairies, Cowsheds, and Milkshops :—		
Number of Inspections	400	6
Number of New Registrations	23	
14.—Bakehouses—Number of Inspections	270	41
15.—Slaughterhouses :—		
Number of Inspections while Slaughtering was in Progress	3844	40
Number of Other Inspections	198	23
16.—Other Premises where Food is Manufactured or Stored—Number of Inspections	1053	21
17.—Sale of Food and Drugs Acts—Number of Samples sent to Public Analyst	248	14
18.—Infectious Diseases—Visits to Infected Houses :—		
(*a*) First visits for investigation	742	
(*b*) Weekly visits to secure isolation	335	
(*c*) Visits to control disinfection	559	
Visits to Smallpox Contacts	1556	
Rooms stripped under I.D.P. Act	353	
19.—Tuberculosis—Rooms stripped, etc.	111	
20.—Number of Visits for Inspection of :—		
(*a*) Schools	11	4
(*b*) Public Lavatories	210	3
(*c*) Van-dwellers	8	1
(*d*) Cinemas, etc.	25	4
21.—House-to-House Inspection :—		
Number of Houses Inspected	385	296
Houses Cleansed and Whitewashed		260
Defective Houses Repaired		249
22.—Houses Unfit for Human Habitation reported to M.O.H. under :—		
(*a*) Sec. 11, Housing Act, 1925	24	24
(*b*) Sec. 3, Housing Act, 1925	1	1

Table 6. Northampton, 1928.

Reconstruction of Drains.

SITUATION OF PREMISES.	NO. OF HOUSES.
Abington Avenue, 39	1
Arundel Street, 35	1
Austin Street, 1	1
Bath Street, 28, 30, 32, 34	4
Brook Street, 5, 7	2
Cliftonville, "Nine Springs" (front section)	1
Compton Street, 31, 33, 35, 37, 39, 41	6
Derngate, 4, 46, 48	3
Doddridge Street, 2, 4, 6, 8, 10	5
Gladstone Terrace, 23, 25, 27, 29	4
Grey Friars Street, 23	1
Harlestone Road, 12	1
Hunter Street, 19, 21	2
Kettering Road, 150	1
Kingsthorpe Road, 48	1
Lady's Lane, "Britannia Inn"	1
Main Road, "Rose and Crown"	1
Military Road, 15, 17, 19, 67	4
Newland, 26, 71	2
Pytchley Street, 1	1
Semilong Road, 152, 154, 156, 158, 160	5
Spring Gardens, 4, 5, 6, 7	4
Upper Harding Street, "Harding Street Tavern"	1
Wellington Place, 11, 12	2
Total	55

TABLE 7. NORTHAMPTON, 1928.

DRAIN EXAMINATION UNDER SECTION 41 OF THE PUBLIC HEALTH ACT, 1875.

SITUATION OF PREMISES.	RESULT OF EXAMINATION	REMARKS
Ashburnham Road, 72	Defective	Repaired
Number of Drains Examined 1		

TABLE 8. NORTHAMPTON, 1919–1928.

NUMBER OF RATS KNOWN TO HAVE BEEN DESTROYED BY THE OFFICIAL RAT-CATCHER IN EACH YEAR.

YEAR.	NUMBER OF TAILS.
1919 (three months)	163
1920	3,214
1921	2,994
1922	3,237
1923	3,337
1924	3,624
1925	2,976
1926	2,155
1927	2,434
1928	2,814
Total	26,948

TABLE 9. NORTHAMPTON, 1928.

UNSOUND FOOD VOLUNTARILY SURRENDERED AND DESTROYED.

NATURE OF FOOD.	WEIGHT.			
	TONS.	CWTS.	QRS.	LBS.
Beef, home killed	21	2	2	3
Beef, imported	—	3	1	21
Mutton, home killed	—	18	2	26
Offal, home killed	1	7	2	13
Pork, home killed	3	17	0	2
Veal, home killed	—	5	0	11
Bacon	—	—	1	21
Eggs, English	—	1	1	12
Eggs, imported	—	3	2	10
Fish	3	8	2	25
Fruit	—	—	1	25
Vegetables	—	4	1	24
Total (700 surrenders*)	31	13	1	25

Also 2,464 tins of food, 123 rabbits, 9 pheasants, 3 partridges, and 5 pigeons.

* There was also one seizure. *See* page 17.

TABLE 10. NORTHAMPTON, 1928.

UNSOUND FOOD. STATEMENT OF CARCASES OF MEAT CONDEMNED, SHEWING NUMBER AFFECTED WITH TUBERCULOSIS.

NATURE OF FOOD.	MEAT CONDEMNED.		MEAT FOUND TO BE TUBERCULOUS.	
	WHOLE CARCASES.	PART CARCASES.	WHOLE CARCASES.	PART CARCASES.
Beef	81	40	42	37
Mutton	56	6	—	—
Pork	54	86	25	84
Veal	9	1	2	—

Table 11. Northampton, 1928.

Food and Drugs. Samples taken for Analysis.

Nature of Sample.	Informal Samples.		Official Samples.	
	Total Number.	No. not Genuine.	Total Number.	No. not Genuine.
Arrowroot	3	—	—	—
Butter	—	—	8	—
Camphorated Oil	2	—	—	—
Cocoa	—	—	2	—
Cream	12	—	—	—
Cream of Tartar	3	—	—	—
Custard Powder	2	—	—	—
Ground Almonds	4	—	—	—
Ground Rice	2	—	—	—
Ipecacuanha Wine	—	—	1	1
Jam	—	—	2	—
Lard	—	—	4	—
Margarine	—	—	2	—
Milk	24	1	153	12
Milk (skim)	—	—	5	—
Pepper	3	—	—	—
Sausages	8	—	—	—
Sweet Spirits of Nitre	—	—	5	—
Vinegar	—	—	3	—
Totals	63*	1	185*	13

*A grand total of 248 samples, **fourteen** of which (5·6 per cent.) were found not to be genuine.

Table 12. Northampton, 1928.

Enterica, Smallpox, Scarlet Fever, and Diphtheria.

Disease.	Notifications.	Attack-rates per 1,000.	Deaths.	Death-rates.	Fatality.	Numbers removed to Hospital.	Removal rates per cent.
Enterica	2	0.02	—	—	—	—	—
Smallpox	82	0.87	—	—	—	82	100.0
Scarlet Fever	228	2.42	*	—	—	129	56.6
Diphtheria	81	0.86	7	0.07	8.6	65†	80.2

Figures given in this Table refer to notifications received without reference to corrected diagnosis.

*One case was found not to be suffering from scarlet fever on admission to the Borough Infectious Diseases Hospital and died ten days later from meningitis.

† Includes four admitted to the General Hospital, one being transferred subsequently to the Borough Hospital.

Table 13. Northampton, 1928.

Borough Hospital, Harborough Road. Cases of Communicable Disease under Treatment.

	Scarlet Fever.	Diph-theria.	Erysip-elas.	Total.
Number remaining from 1927 ...	23	—	—	23
Number admitted during 1928 ...	129	64	1	194
Number discharged during 1928 ...	139	53	1	193
Number died during 1928	1	4	—	5
Number remaining at end of 1928...	12	7	—	19

Table 14. Northampton, 1928.

Number of Articles Disinfected by Steam Month by Month at the Disinfecting Station, St. Andrew's Road.

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
741	309	797	241	550	566	358	710	638	1325	793	802	7830

Table 15. Northampton, 1928.

Clinical Bacteriology. Number of Suspected Cases in which Examination was Made and the Number and Nature of the Reports Received in Connection with These.*

Diphtheria—Throat and Nose Secretions.				Typhoid and Paratyphoid Fevers—Dreyer's Tests, etc.				Tuberculosis—Sputum, Urine, etc.				Other Conditions.				Total.			
No. of Suspected Cases	Reports received.			No. of Suspected Cases	Reports received.			No. of Suspected Cases	Reports received.			No. of Suspected Cases	Reports received.			No. of Suspected Cases	Reports received.		
	Positive	Negative	Total		Positive	Negative	Total		Positive	Negative	Total		Positive	Negative	Total		Positive	Negative	Total
367	152	608	760	8	1	7	8	406	121	374	495	3	—	3	3	784	274	992	1266

* The above Table does not take into account the reports made in connection with the venereal diseases scheme.

Table 16. Northampton, 1928.

Housing Act, 1925. Houses represented by the Medical Officer of Health during the Year. Subsequent Action and Condition at the End of the Year.

HOUSES.	DATE OF			REMARKS.
	Representations.	Closing Orders.	Demolition Orders.	
Chapel Gardens, 6, 7, 8, 9, and 10	4–4–28	—	—	No. 6 used as a store; remainder occupied
Clifton Place, 1, 2, 3, 4, 5, and 6	9–5–28	30–7–28	—	All empty
Fetter Street, 29 and 31	14–11–28	—	—	Both occupied
Horsemarket, 15 and 17	7–3–28	4–6–28	—	No. 15 occupied; No. 17 derelict
Regent Square, 1 and 2 (dwelling portions)	7–3–28	4–6–28	—	No. 1 occupied; No. 2 empty
St. Mary's Street, 30	7–3–28	—	—	Dealt with under Section 3 of Housing Act, 1925
Scarletwell Street, 111	4–4–28	30–7–28	—	Empty
Scarletwell Street, Court 3; 2, 3, 4, 5, and 6	5–9–28	3–12–28	—	All occupied

TABLE 17. NORTHAMPTON, 1928.

HOUSING ACTS, 1909–1925. HOUSES REPRESENTED BY THE MEDICAL OFFICER OF HEALTH PREVIOUS TO 1928, BUT NOT FINALLY DEALT WITH BEFORE THIS YEAR BEGAN. ACTION TAKEN DURING 1928, AND CONDITION AT THE END OF THE YEAR.

HOUSES.	DATE OF			REMARKS.
	Representations.	Closing Orders.	Demolition Orders.	
Bath Street, 88 and 90	7–7–26	10–11–26	7–5–28	Both empty
Bearward Street, 36	19–2–19	2–6–19	—	Used as shed, etc. (not reconstructed)
Bearward Street, 46 and 48	9–12–25	8–3–26	—	No. 46 empty; No. 48 occupied
Chapel Place, 11, 12, 13, 14, 15, 16, 17, 18, and 19	9–1–25	4–5–25	5–3–28	Demolished
Crispin Street, 25, 27, 29, and 31	4–5–27	10–11–27	—	No. 31 empty; remainder occupied
Freeschool Street, 16	16–11–27	5–3–28	1–10–28	Empty
Freeschool Street, 22	21–1–20	7–6–20	—	Empty
Gas Street, 18	14–4–26	6–12–26	—	Empty
Horseshoe Street, 13, 15, 17, 19, and 21	11–9–25	7–12–25	30–7–28	Empty
Leicester Street, 6, 8, and 10	16–11–27	7–5–28	—	Empty
Mayorhold, 26	7–12–27	5–3–28	—	Empty
Monks Pond Street, 12	12–1–27	4–4–27	—	Thoroughly repaired and renovated. C.O. rescinded by Council, 7–5–28
Narrow Toe Lane, 3, 4, and 5	16–3–27	13–6–27	3–12–28	Empty
Regent Street, 49 ...	6–10–26	7–3–27	5–3–28	Empty
Riding, 9	26–1–21	4–4–21	5–3–28	Demolished
Riding, 25, 26, 27, 28, and 32	20–9–22	4–12–22	—	Nos. 25 and 32 empty, No. 26 occupied; Nos. 27 and 28 used as stores (not altered)
Riding, 33, 34, and 36	20–9–22	1–1–23	—	Nos. 33 and 34 occupied; No. 36 empty
St. Mary's Street, 4 and 6	30–10–12	10–2–13	2–1–28	Empty
St. Mary's Street, Court 3, 3 and 4	7–9–27	5–12–27	—	Empty
Todd's Lane, 2, 4, 6, 8, 10, 12, 14, and 16	16–11–27	5–3–28	—	Nos. 4, 8, and 10 empty; remainder occupied
Vicarage Lane, The Yard, 2, 3, 4, and 5	14–11–24	2–2–25	—	Empty

TABLE A.

COUNTY BOROUGH OF NORTHAMPTON.
Vital Statistics during 1928 and Previous Years.

Year.	Population estimated to Middle of each Year. (Total)	Births.			Total Deaths registered in the District.		Transferable Deaths.		Nett Deaths belonging to the District.			
		Uncorrected Number.	Nett.						Under 1 Year of Age		At all Ages.	
			Number.	Rate.	Number.	Rate.	Non-residents registered in the District.	Residents not registered in the District.	Number.	Rate per 1000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1918	81113	1316	1313	14·4	1426	17·6	122	81	121	92·2	1385	17·1
1919	88944	1432	1411	15·3	1301	14·6	137	54	116	82·2	1218	13·7
1920	92488	2318	2248	24·2	1137	12·3	130	40	166	73·8	1047	11·3
1921	92300	1924	1881	20.4	1022	11.1	123	65	124	65.9	964	10.4
1922	92950	1697	1646	17.7	1108	11.9	116	54	86	52.2	1046	11.3
1923	93230	1723	1662	17.8	1177	12.6	140	49	95	57.2	1086	11.6
1924	93590	1591	1534	16·4	1143	12.2	149	42	80	52.1	1036	11.1
1925	93970	1531	1471	15.6	1229	13.1	167	54	98	66.6	1116	11.9
1926	93740	1393	1309	14.0	1163	12.4	174	75	72	55.0	1064	11.4
1927	93260	1362	1281	13·7	1248	13·4	170	46	78	60·9	1124	12·0
1928	94270	1366	1308	13·9	1204	12·8	207	63	70	53·5	1060	11·3

This Table is arranged to shew the gross births and deaths in the district and the births and deaths properly belonging to it with the corresponding rates.

Column 6 includes the whole of the deaths registered during the year as having actually occurred within Northampton and excludes any deaths of soldiers and sailors. Such deaths were as follow :—

YEAR.	NO. OF DEATHS.
1918	69
1919	9
1920	1
1921	0
1922	0
1923	1
1924	0
1925	0
1926	2
1927	0
1928	0

TABLE B.

COUNTY BOROUGH OF NORTHAMPTON.

Cases of Notifiable Diseases during the Year 1928.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.													CASES NOTIFIED IN EACH WARD											Cases Admitted to Borough Hospitals.	Total Deaths (*see* Table C.).
	All Ages.	AGES (IN YEARS).												Abington	Castle	Delapre	Kingsley	Kingsthorpe	North	St. Crispin's	St. Edmund's	St. James'	St. Lawrence's	St. Michael's	South		
		0–	1–	2–	3–	4–	5–	10–	15–	20–	35–	45–	65–														
Chickenpox	210*	13	7	23	10	19	129	6	2	1	—	—	—	4	5	74	42	25	9	18	3	9	3	11	7	—	—
Diphtheria	81	2	5	5	1	9	34	12	8	5	—	—	—	—	10	4	3	8	3	4	4	7	2	6	30	62	7
Encephalitis Lethargica	1	—	—	—	—	—	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	3
Enterica	2	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	1	—	—
Erysipelas	53	1	—	1	—	—	—	2	2	9	10	20	8	1	8	4	3	—	8	1	5	6	2	9	6	1	5
Ophthalmia Neonatorum	16	16	—	—	—	—	—	—	—	—	—	—	—	1	4	—	3	2	1	1	—	2	1	—	1	—	—
Pneumonia	266	27	19	21	21	13	41	10	7	27	31	31	18	16	40	19	34	14	25	23	14	23	21	24	13	—	61†
Puerperal Fever	7	—	—	—	—	—	—	—	—	6	1	—	—	—	2	—	1	—	—	1	1	—	—	—	2	—	3
Puerperal Pyrexia	13	—	—	—	—	—	—	—	2	9	1	—	—	1	1	—	1	2	—	—	2	—	2	1	3	—	—
Scarlet Fever	228	1	2	11	16	19	127	24	12	14	1	1	—	22	11	21	33	15	26	17	6	32	17	17	11	129	—
Smallpox	82	—	1	—	—	—	25	6	11	19	6	14	1	8	22	3	1	1	19	7	13	—	6	2	—	82	—
Tuberculosis :—																											
Respiratory	109	—	—	—	—	—	1	2	9	54	16	23	4	6	15	5	10	7	12	9	10	12	10	9	4	60‡	86
Other Forms	42	1	4	—	2	4	12	4	2	7	2	3	1	2	5	—	3	2	5	3	1	6	5	3	7	5§	14
Totals	1110	61	38	61	50	64	370	66	56	151	68	93	32	62	123	130	135	76	108	84	59	97	69	82	85	339	179

*Notification commenced 20th August.
†Nine of these died from influenzal pneumonia.
‡Twenty-eight to Welford Road Hospital and thirty-two to Creaton Sanatorium.
§All five to Manfield Orthopædic Hospital.

The above figures take no account of corrections in diagnosis. (*See* Section V. of this Report for further information).

INSTITUTIONS :—(1) Harborough Road Infectious Diseases Hospital (total available beds about 100) ;
(2) Welford Road Tuberculosis Hospital (28 beds) ;
(3) Smallpox Hospital, near Hardingstone (30 beds) ;
(4) Creaton Sanatorium, Northampton (15 beds reserved for Northampton County Borough) ;
(5) Manfield Orthopædic Hospital, Northampton (16 beds available for surgical tuberculosis cases).

TABLE C.

COUNTY BOROUGH OF NORTHAMPTON.

Causes of Death at Different Periods of Life during the Year 1928.

Causes of Death.		Nett Deaths at the Subjoined Ages (in Years) of "Residents" whether occurring within or without the District.												Total Deaths whether of Residents or Non-Residents in Institutions in the District.
		All Ages.			0–	1–	2–	5–	15–	25–	45–	65–	75–	
		Total	M.	F.										
ALL CAUSES	Certified	1057	548	509	70	18	10	29	44	112	247	255	272	409
	Uncertified	3	1	2	—	—	—	—	—	—	1	—	2	—
1.	Enteric Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
2.	Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—
3.	Measles	7	3	4	2	2	3	—	—	—	—	—	—	—
4.	Scarlet Fever	—	—	—	—	—	—	—	—	—	—	—	—	—
5.	Whooping Cough	—	—	—	—	—	—	—	—	—	—	—	—	—
6.	Diphtheria	7	4	3	1	1	1	3	—	1	—	—	—	4
*7.	Influenza	15	12	3	—	—	—	—	2	3	4	6	—	2
8.	Encephalitis Lethargica	3	1	2	—	—	—	1	—	1	1	—	—	1
9.	Mengingococcal Meningitis	—	—	—	—	—	—	—	—	—	—	—	—	1
10.	Tuberculosis of Respiratory System	86	49	37	—	—	—	1	23	39	19	3	1	6
*11.	Other Tuberculous Diseases	14	8	6	—	4	2	4	1	3	—	—	—	16
12.	Cancer, Malignant Disease	150	67	83	—	—	—	—	1	5	62	56	26	62
13.	Rheumatic Fever	8	6	2	—	—	—	2	—	2	4	—	—	3
14.	Diabetes	12	8	4	—	—	—	—	—	1	3	6	2	7
15.	Cerebral Hæmorrhage, etc.	63	25	38	—	—	—	—	—	1	12	20	30	11
16.	Heart Disease	214	92	122	—	—	—	2	4	16	44	70	78	53
17.	Arterio-sclerosis	45	25	20	—	—	—	—	—	—	7	21	17	13
18.	Bronchitis	68	29	39	4	1	—	—	—	1	8	16	38	8
*19.	Pneumonia (all forms) (*see* also 7 (*a*) below)	52	35	17	9	5	1	3	1	8	15	6	4	17
20.	Other Respiratory Diseases	8	6	2	—	—	1	1	—	—	1	3	2	6
21.	Ulcer of Stomach or Duodenum	7	6	1	—	—	—	—	—	1	4	1	1	3
22.	Diarrhœa, etc.	4	4	—	1	1	—	1	—	—	—	1	—	6
23.	Appendicitis	10	7	3	—	—	1	1	—	2	4	1	1	11
24.	Cirrhosis of Liver	2	1	1	—	—	—	—	—	—	2	—	—	3
25.	Acute and Chronic Nephritis	32	18	14	—	—	1	1	1	3	6	12	8	15
26.	Puerperal Sepsis	3	—	3	—	—	—	—	1	2	—	—	—	6
27.	Other Accidents and Diseases of Pregnancy and Parturition	1	—	1	—	—	—	—	—	1	—	—	—	7
28.	Congenital Debility and Malformation, Premature Birth	40	28	12	37	1	—	2	—	—	—	—	—	11
29.	Suicide	15	11	4	—	—	—	—	2	3	8	2	—	2
30.	Other Deaths from Violence	25	17	8	4	—	—	1	1	4	7	5	3	39
*31.	Other Defined Diseases	169	87	82	12	3	—	6	7	15	37	26	63	96
32.	Causes Ill-defined or Unknown	—	—	—	—	—	—	—	—	—	—	—	—	—
	Totals	1060	549	511	70	18	10	29	44	112	248	255	274	409
	7 (*a*) Influenzal Pneumonia	9	8	1	—	—	—	—	1	3	1	4	—	—
*Sub-entries included in above figures.	11 (*a*) Tuberculous Meningitis	11	6	5	—	4	1	4	1	1	—	—	—	6
	19 (*a*) Broncho-pneumonia	23	13	10	9	5	—	3	—	—	3	2	1	8
	31 (*a*) Old Age	43	22	21	—	—	—	—	—	—	—	6	37	3
	(*b*) Meningitis	4	3	1	—	1	—	2	1	—	—	—	—	2
	(*c*) Syphilis	3	2	1	—	—	—	—	—	2	1	—	—	3
	(*d*) Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—
	(*e*) Erysipelas	5	1	4	—	—	—	—	—	1	2	1	1	4

Nett Deaths Registered.	M.	F.	Totals.		Death-Rates.
First Quarter	160	159	319	...	13·6
Second Quarter	127	129	256	...	10·9
Third Quarter	118	107	225	...	9·6
Fourth Quarter	144	116	260	...	11·1
Totals (52 weeks)	549	511	1060	...	11·3

TABLE D.

COUNTY BOROUGH OF NORTHAMPTON.

INFANT MORTALITY DURING THE YEAR 1928

Nett Deaths from stated Causes at various Ages under One Year.

Causes of Death.		Under 1 week	1—2 weeks	2—3 weeks	3—4 weeks	Total under 4 weeks	4 weeks and under 3 months	3 months and under 6 months	6 months and under 9 months	9 months and under 12 months	Total Deaths under 1 year
ALL CAUSES	Certified	27	3	2	1	33	12	9	9	7	70
	Uncertified	...	...	...	...	...	...	...	...	...	...
1.	Smallpox	...	...	...	...	...	...	...	...	...	..
2.	Chickenpox	...	...	...	...	...	...	...	...	...	.
3.	Measles	...	...	...	...	...	...	1	1	...	2
4.	Scarlet Fever	...	...	...	...	...	...	...	...	...	...
5.	Whooping Cough	...	...	...	...	...	...	...	...	...	...
6.	Diphtheria	...	...	...	...	...	...	...	...	1	1
7.	Erysipelas	...	...	...	...	...	...	...	...	...	...
8.	Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...
9.	Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...
10.	Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...
11.	Meningitis (*not Tuberculous*)	...	...	...	...	...	...	...	...	...	...
12.	Convulsions	...	...	...	...	...	1	1	1	...	3
13.	Laryngitis	...	...	...	...	...	...	...	...	...	...
14.	Bronchitis	...	...	...	...	...	...	1	2	1	4
15.	Pneumonia (all forms)	...	...	...	...	...	1	1	3	4	9
16.	Diarrhœa	...	...	...	...	...	...	...	...	...	...
17.	Enteritis	...	...	...	...	...	...	1	...	...	1
18.	Gastritis	...	...	...	...	...	...	...	...	...	...
19.	Syphilis	...	...	...	...	...	...	...	...	...	...
20.	Rickets	...	...	...	...	...	...	...	...	...	...
21.	Suffocation, overlying	1	...	...	...	1	2	1	...	...	4
22.	Injury at Birth	1	...	...	...	1	...	...	...	...	1
23.	Atelectasis	3	1	1	...	5	...	...	...	...	5
24.	Congenital Malformations	2	...	...	...	2	2	2	...	...	6
25.	Premature Birth	19	1	1	1	22	3	...	...	...	25
26.	Atrophy, Debility, and Marasmus	1	1	...	...	2	3	...	...	...	5
27.	Other Causes	...	...	...	...	...	...	1	2	1	4
	Totals	27	3	2	1	33	12	9	9	7	70

	Live Births Registered.			Nett Deaths Registered.			Infant Death-rates.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total
Legitimate ...	626	623	1249	38	24	62	60·7	38·5	49·6
Illegitimate ...	37	22	59	6	2	8	162·2	90·9	135·6
Totals	663	645	1308	44	26	70	66·4	40·3	53·5

TABLE E. NORTHAMPTON, 1928.

REPORT ON THE

administration of the FACTORY & WORKSHOP ACT, 1901, in connection with

Factories, Workshops, Workplaces, and Homework.

1.—INSPECTION.

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
FACTORIES (Including Factory Laundries and Bakehouses)	145	38	...
WORKSHOPS (Including Workshop Laundries and Bakehouses)	218	12	...
WORKPLACES (Other than Outworkers' Premises)	125	18	...
OUTWORKERS' PREMISES	108	7	...
Totals	596	75	...

2.—DEFECTS FOUND.

Particulars. (1)	Number of Defects.			Number of Prosecutions. (5)
	Found (2)	Remedied. (3)	Referred to H.M. Inspector. (4)	
*Nuisances under the Public Health Acts :—**				
Want of Cleanliness	10	10	...	...
Want of Ventilation	...	...	...	...
Overcrowding	...	...	...	...
Want of Drainage of Floors	...	...	...	...
Other Nuisances	13	13	...	...
Sanitary Accommodation — insufficient	5	5	...	...
Sanitary Accommodation — unsuitable or defective	4	4	...	...
Sanitary Accommodation — not separate for sexes	...	...	...	...
Offences under the Factory and Workshop Acts :—				
Illegal occupation of underground bakehouse (s. 101)	...	...	...	...
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	37	37	...	...
Other Offences (Excluding offences relating to outwork which are included in Part 3 of this Report)	6	6	...	...
Totals	75	75	...	...

*Including those specified in sections 2, 3, 7, and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

3.—HOMEWORK.

NATURE OF WORK. (1)	OUTWORKERS' LISTS, SECTION 107.									OUTWORK IN UNWHOLESOME PREMISES, SECTION 108.			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.		
	Lists received from Employers.						Notices served on Occupiers as to keeping or sending lists. (8)	Prosecutions.							
	Sending twice in a year.			Sending once in the year.				Failing to keep or permit inspection of lists. (9)	Failing to send lists. (10)	Instances. (11)	Notices served. (12)	Prosecutions. (13)	Instances. (14)	Orders made (S. 110). (15)	Prosecutions (Sections 109, 110). (16)
	Lists. (2)	Outworkers. Contractors. (3)	Outworkers. Workmen. (4)	Lists. (5)	Outworkers. Contractors. (6)	Outworkers. Workmen. (7)									
WEARING APPAREL :— (1) Making, etc.	10	9	47	4	2	22	...	...	...	7	7	...	1	1	...

There are no Outworkers in any of the other trades usually shown in the above table.

Figures given in Cols. 11 and 12 refer in each instance to premises requiring cleansing and whitewashing.

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year. (1)	Number. (2)
Number of Workshops (including Bakehouses)	237
Number of Outworkers' Premises on Register	132
TOTAL Number of Workshops on Register	369

5.—OTHER MATTERS.

Class. (1)		Number. (2)
MATTERS NOTIFIED TO H.M. INSPECTOR OF FACTORIES :— Failure to affix abstract of Factory and Workshop Act (s. 133)		...
Action taken in matters referred by H. M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)	Notified by H.M. Inspector	8
	Reports (of action taken) sent to H.M. Inspector	8
Other		...
Underground Bakehouses (s. 101) in use at the end of the year		1